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THE
Surgical Instruments of the Hindus

THE
SURGICAL INSTRUMENTS
OF THE HINDUS

Comparative Study of the Surgical Instruments of
the Greek, Roman, Arab and the Modern
European Surgeons

RINDRANĀTH MUKHOPĀDHYĀYA, B.A., M.D.

Griffith Prize Essay for 1909

In Two Volumes

Vol. II

396 Illustrations in 82 Plates

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PREFACE

Much trouble has been taken with our illustrations, but the author is fully conscious of their many defects. I am greatly indebted to several authors mentioned in the legends to the plates as the readers will find certain of them illustrations copied in this volume. It was found necessary in a comparative study of the surgical instruments used by the different nations of the world. It has been my wish to render due credit to all persons for the illustrations by which they may severally have contributed to the advancement of our knowledge of the subject, and I have never assumed to myself drawings, which belong to others. For those illustrations, not otherwise acknowledged, the author is solely responsible.

For his skill and patience in drawing and printing these figures I am glad to take this opportunity of thanking Mr K V Seyne.

The author deems it a pleasant duty to express his thanks to the University of Calcutta for the liberality displayed in the matter of illustrations.

80, RUSSA ROAD NORTH, }
Calcutta, February, 1914 } G N MUKHOPĀDHYĀYA.

ABBREVIATIONS

Adams	The Genuine Works of Hippocrates Translated by Francis Adams, LL D. in two volumes (Sydenham Society)
A H	Catalogue of Surgical Instruments and Appliances Allen and Hanbury's Ltd 1903
A S	Catalogue of Surgical Instruments and Appliances Arnold and Sons 1895
Anderson	See Welleome
B B	Surgical Instruments and Appliances Burgoynes, Buridges & Co
C C G	Collection de Chirurgiens Grecs Bibliothèque Nationale Paris
Erichsen	The Science and Art of Surgery By Sir John Eric Erichsen Bt, F R S, LL D Tenth Edition 1895
Esmarch	The Surgeon's Handbook of the Treatment of Wounded in War By Dr Friedrich Esmarch
Heath	Minor Surgery and Bandaging By C Heath, F R C S Second Edition
I M G	Indian Medical Gazette, 1904
K S	Catalogue of Surgical Instruments Kny-Scheerer & Co
Milne	Surgical Instruments in Greek and Roman Times By T S Milne, M A, M D, 1907
Porter	The Surgeon's Pocket-Book The Best Treatment of Wounded in War By Surgeon-Major T H Porter 1891
Prinsep	Prinsep's (Thomas') Indian Antiquities

Swain	Surgical Emergencies By W P Swain, F R C S Third Edition 1880
Thakore Saheb	History of Aryan Medical Science By H. H Sir Bhagvat Singh Jee, K C I E, M D, D C L, L L D, F R C P E Thakore Saheb of Gondal 1896
Waggett	Diseases of the Nose By E B Waggett, M A, M B, B C 1907
Wellcome	Third Report of the Wellcome Research Laboratories at the Gordon Memorial College, Khartoum
White	The Veterinary Art By James White 1851

CORRECTIONS

Page	37	Plate	XIX	Fig	5	Read	Samipatra	for	Amipatra
	88	"	XLIV	"	2	"	3	"	2
"	88	"	XLIV	"	3	"	2	"	3
	103	"	LII	"	209	"	4	"	209
"	108	"	LIV	"	5	"	6	"	5
"	108	"	LIV	"	6	"	5	"	6
	157	"	LXXIX	"	5	"	5	before	—

—————

THE SURGICAL INSTRUMENTS OF THE HINDUS,

PLATE I

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2 — Instrument box	80
3 — Instrument box of the Greeks Milne Plate IV	80
4 — Instrument box (modern) A H Fig 223	80

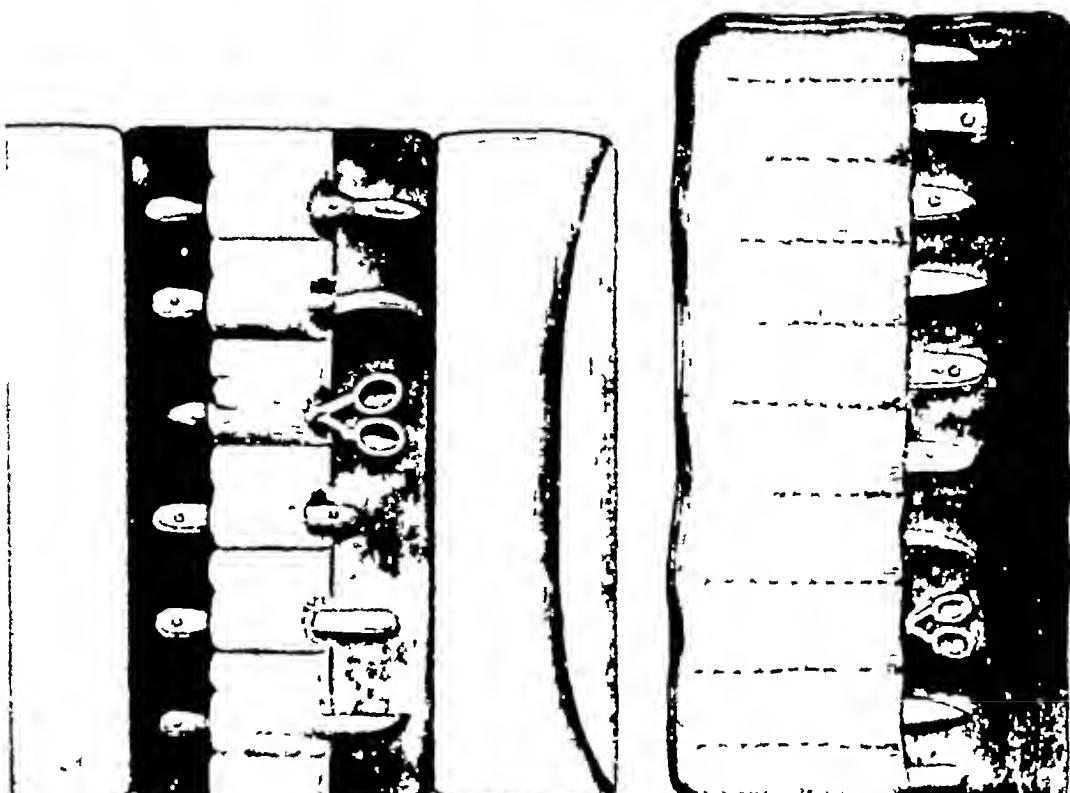
THE SURGICAL INSTRUMENTS OF THE HINDUS

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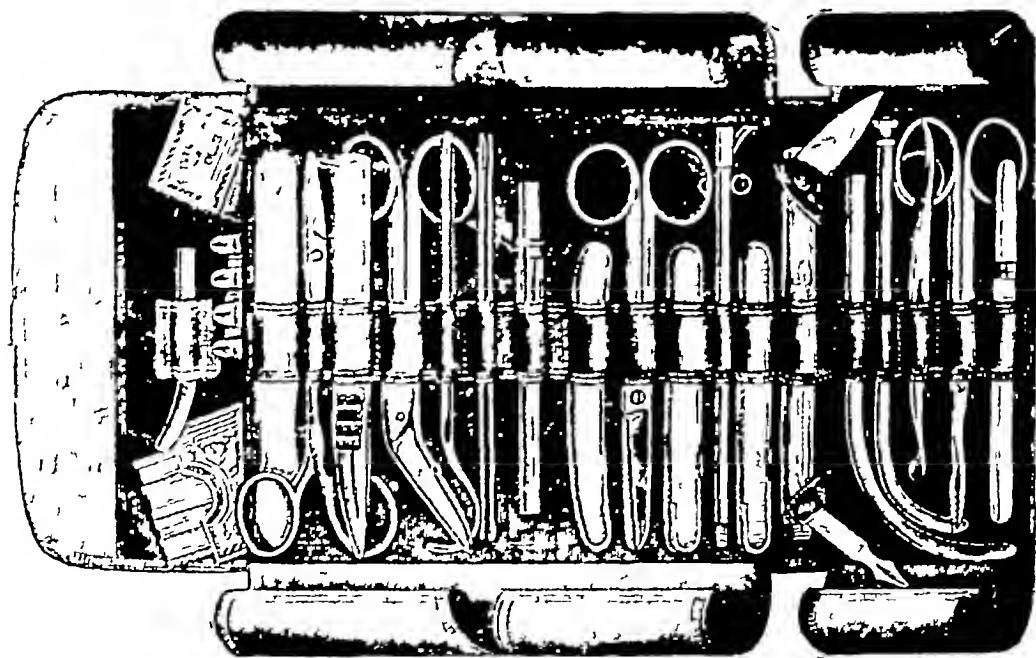
The Surgical Instruments of the Hindus.

Plate II



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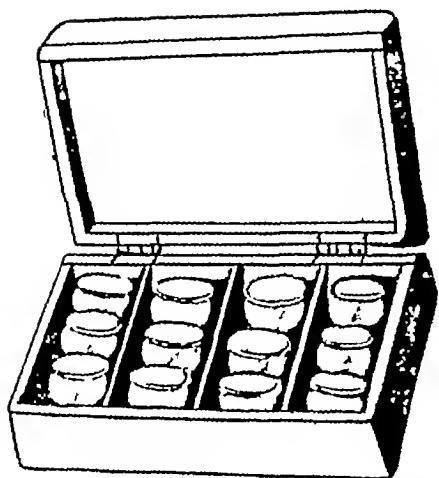
THE SURGICAL INSTRUMENTS OF THE HINDUS.

PLATE III

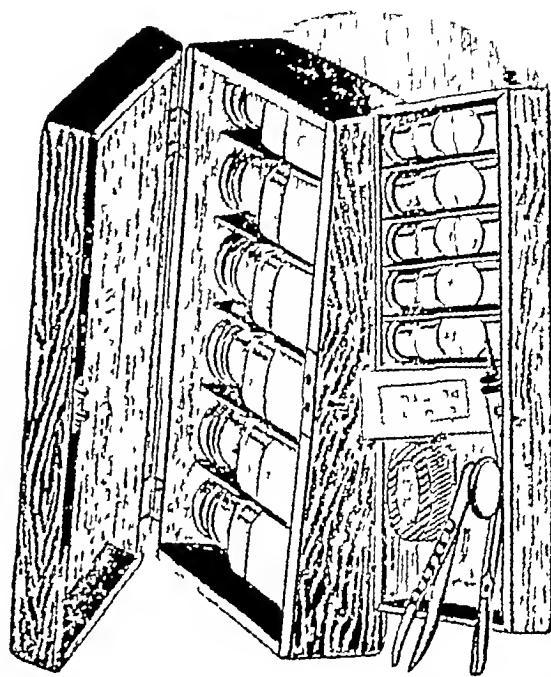
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The Surgical Instruments of the Hindus

Plate III.



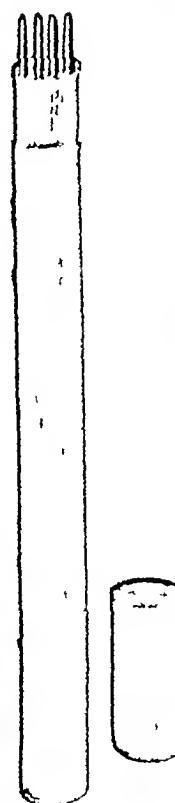
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THE SURGICAL INSTRUMENTS OF THE HINDUS

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The Surgical Instruments of the Hindus

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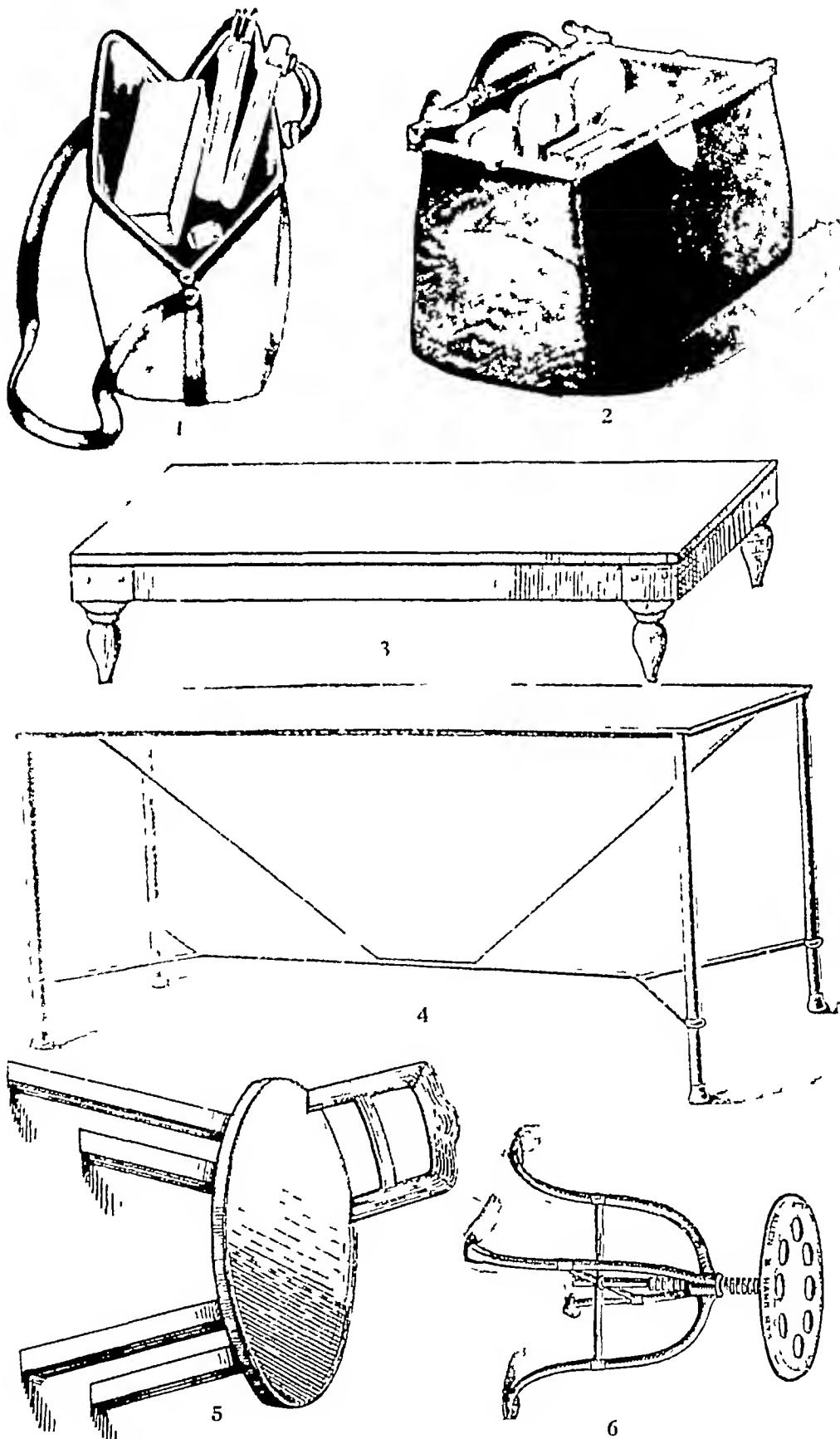


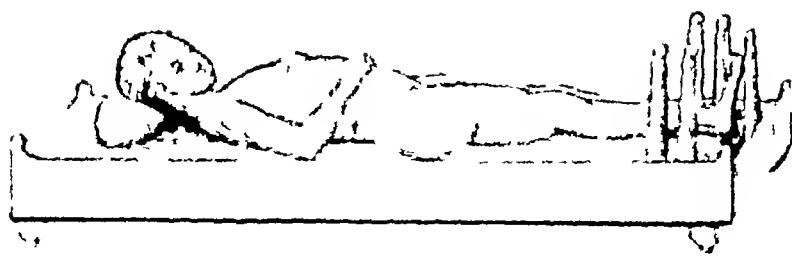
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KAPĀTA-ŚAYANA OR FRACTURE-BED OF THE HINDUS

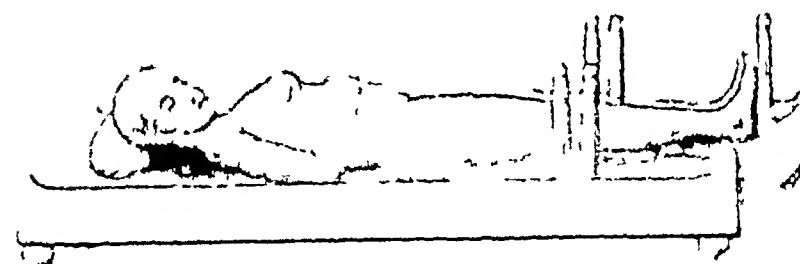
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The Surgical Instruments of the Hindus

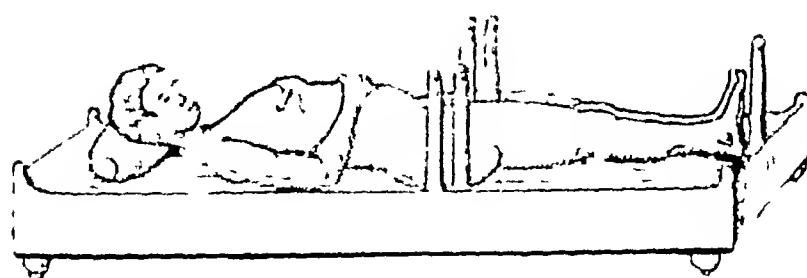
Plate V



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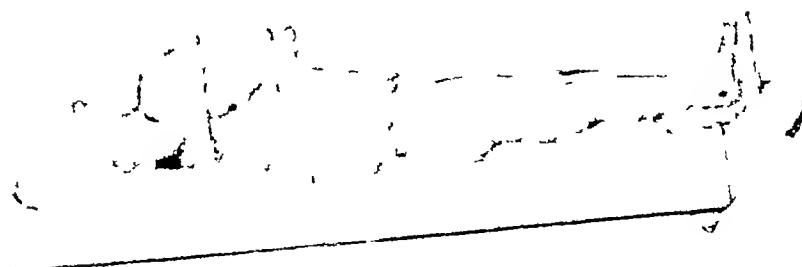
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PLATE VII

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A A board, 6 cubits long, 2 broad and 12 inches thick , not 13 as incorrectly stated by M Littié	
B The feet of the Axles, which are short	
CC Axle-trees	
DD Grooves 3 inches deep, 3 broad, seperated from one another by 4 inches	
E A small post or pillar, fastened in the middle of the machine in a quadrangular hole	
F Pillars a foot long	
G A cross-beam laid on the pillars FF, which can be placed at different heights by means of holes in the pillars	

Adams Vol II Pl IV Fig 1 & 2

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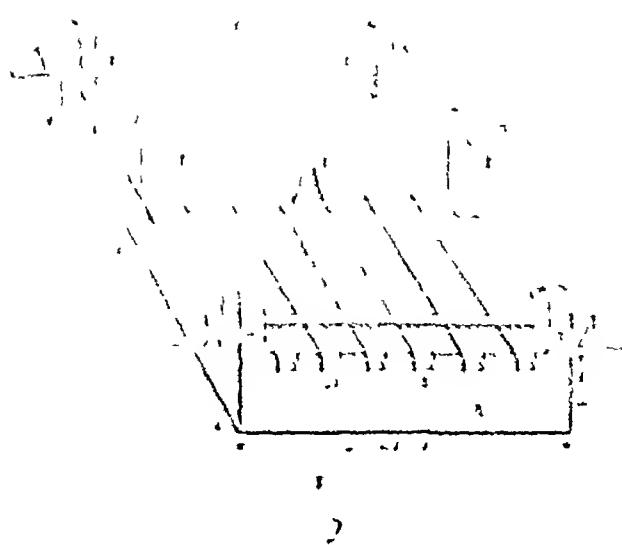
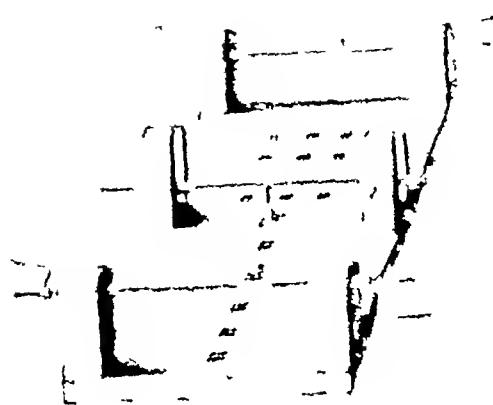


PLATE VIII

FIGURE

PAGE

1 — Representation of the mode of reducing dislocation of the thigh outwards, as given by M Littré (Œuv d'Hipp, tom iv, p 305) 89

A mistake in the figure given by M Littré is here corrected

A A lever applied to the nates of the luxated side, and acting from without inwards, in order to bring the head of the bone into its cavity

B Another lever, held by an assistant, put into one of the grooves of the machine, and intended to act against lever A

C Grove in which the end of the lever A takes its point of support

D The luxated member

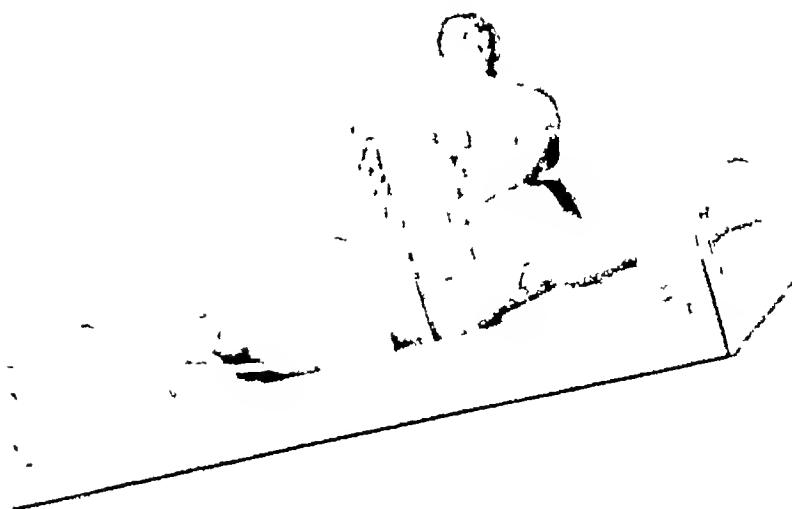
EE Extension and counter-extension

Adams Vol II Pl V Fig 1

2 — The double inclined plane (Planum inclinatum duplex) framed out of some boards and provided at the sides with wooden pegs, by which the borders of the quilled horse hair mattress, supporting the leg, are pressed against the limb, Esmarch Fig 201 89

Presented by the Hindu
to the Government of India

1928



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PLATE IX

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Plate X

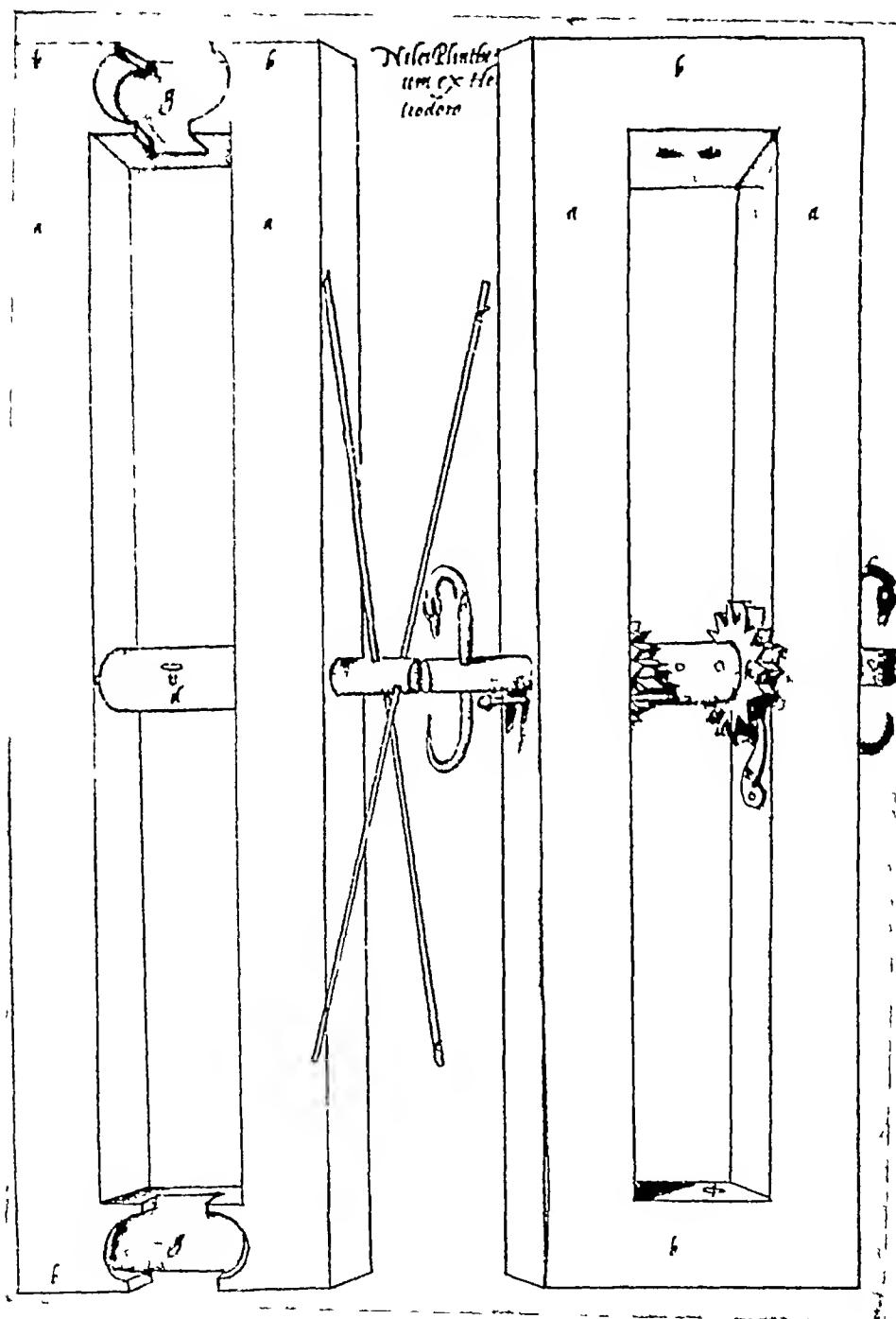


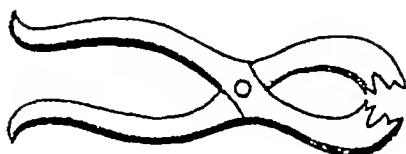
PLATE XI

THE SVASTIKA YANTRA OR CRUCIFORM INSTRUMENTS

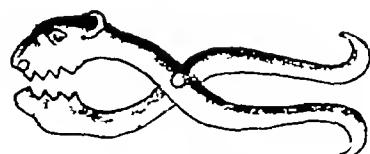
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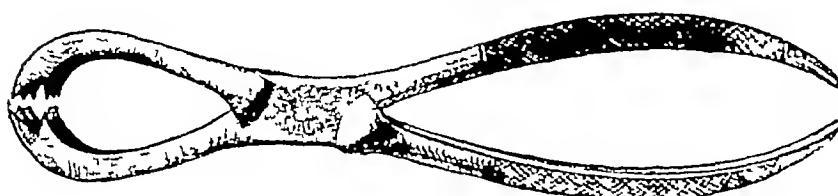
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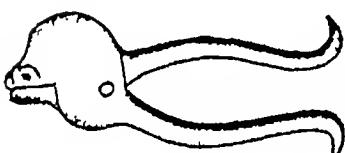
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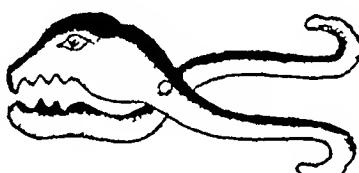
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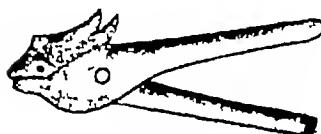
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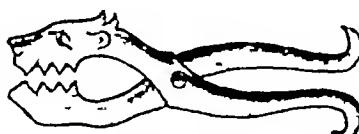
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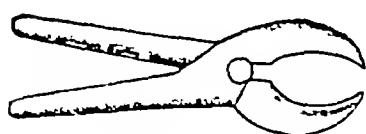
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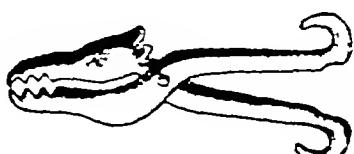
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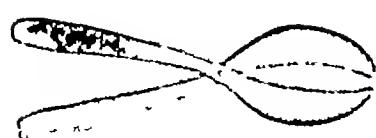
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THE SVASTIKA YANTRA OR CRUCIFORM INSTRUMENTS

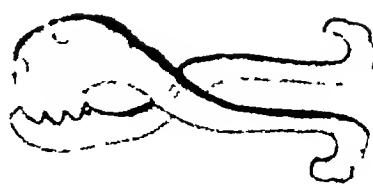
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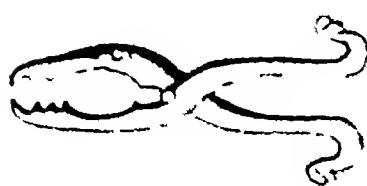
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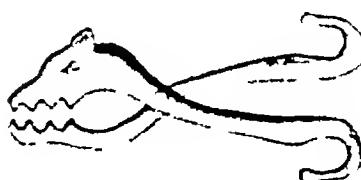
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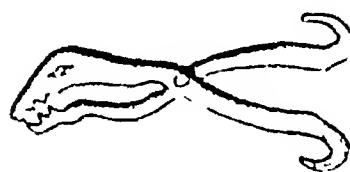
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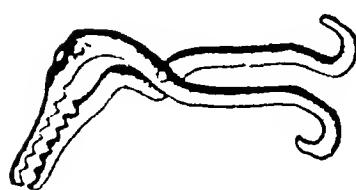
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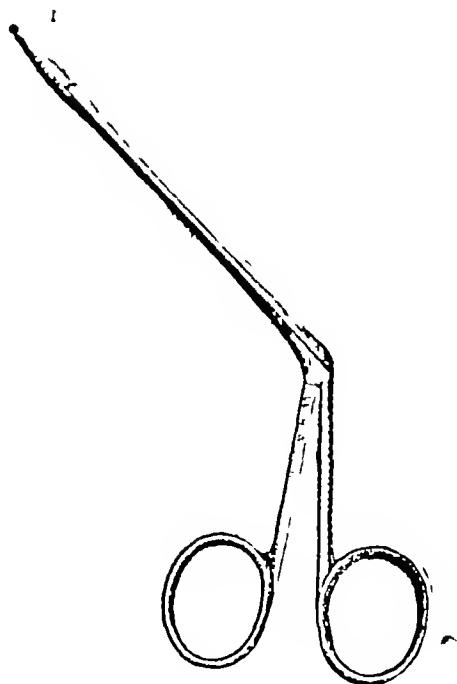
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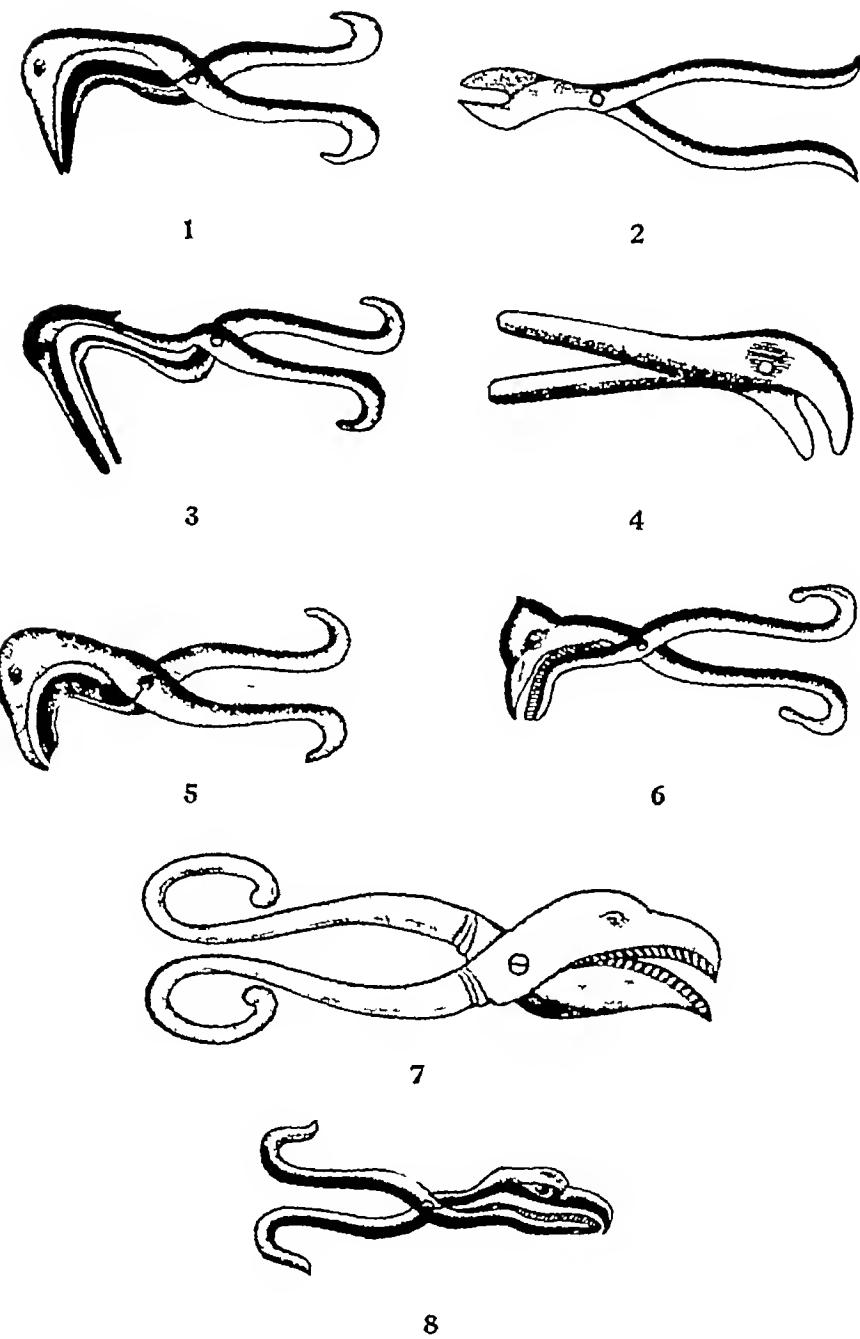


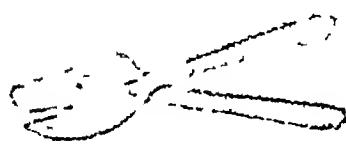
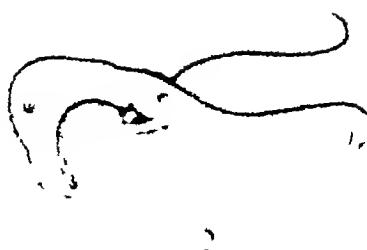
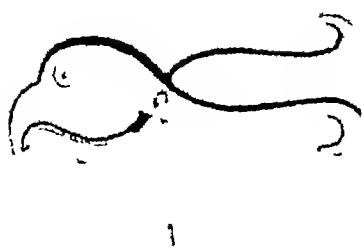
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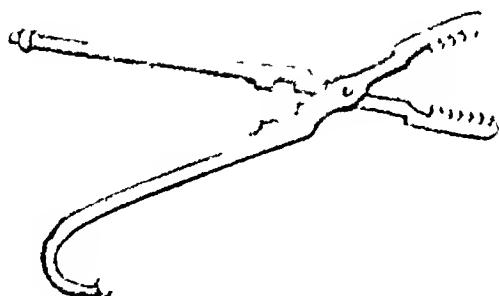
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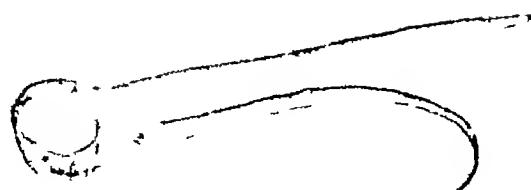
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Plate VI



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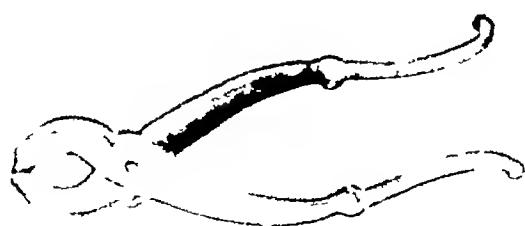
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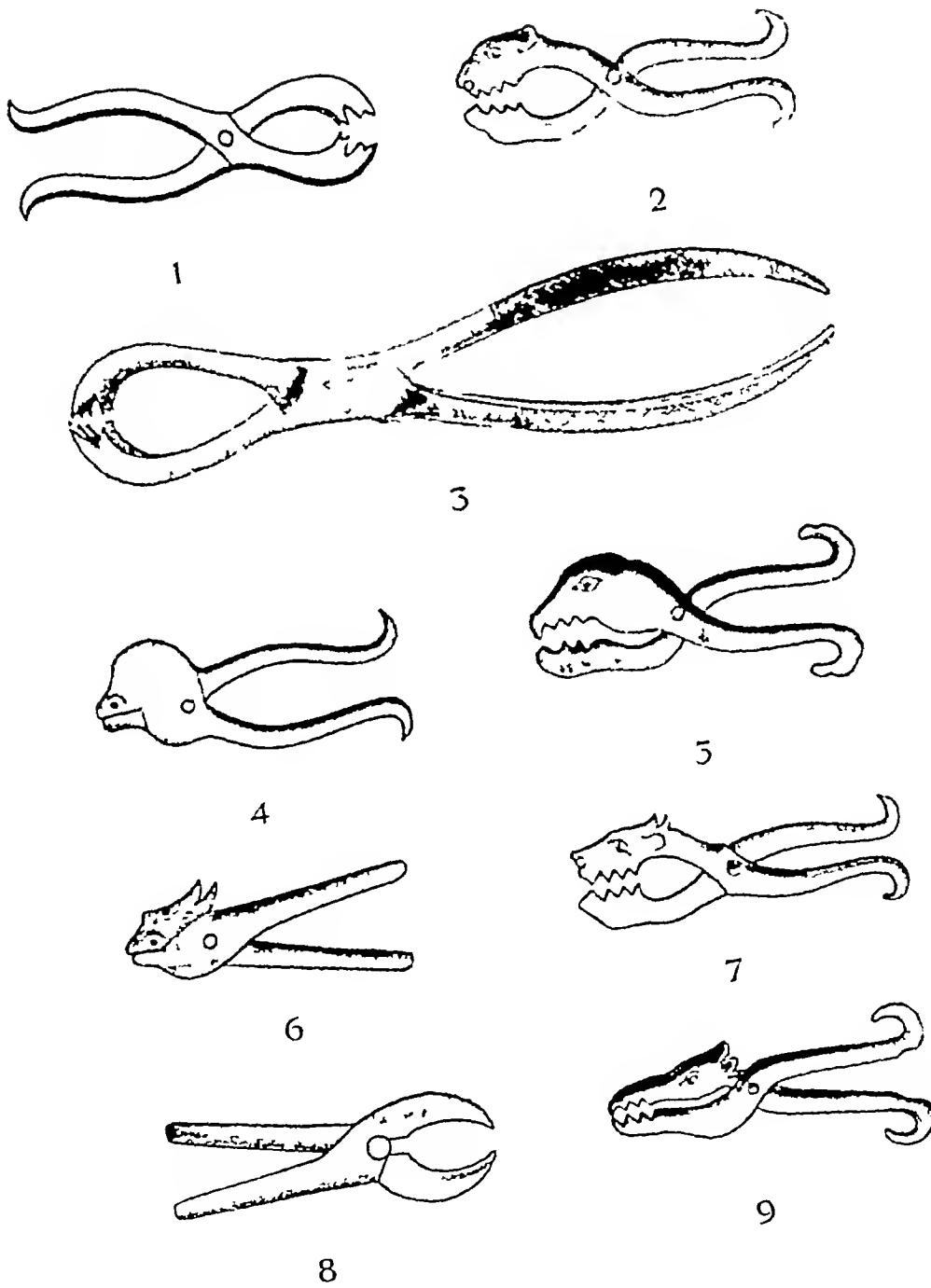
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THE SANDAMŚA YANTRA OR PINCHER-LIKE INSTRUMENTS

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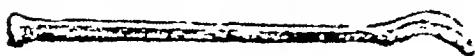
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Plate XI

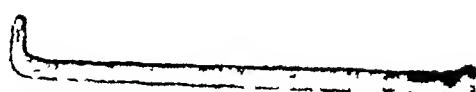


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Plate XVII



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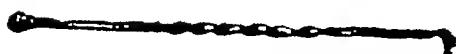
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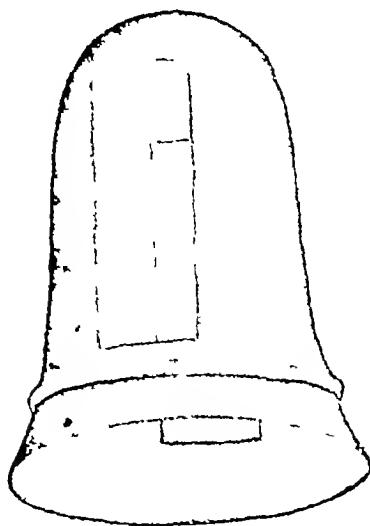
PLATE XIX

THE NĀDĪ YANTRA OR TUBULAR INSTRUMENTS

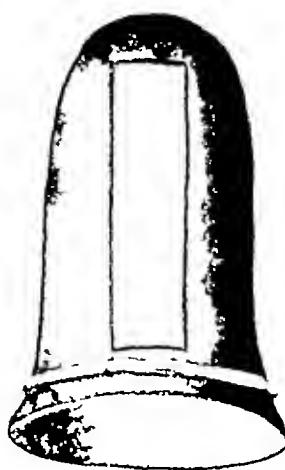
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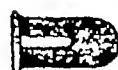
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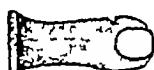
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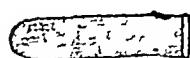
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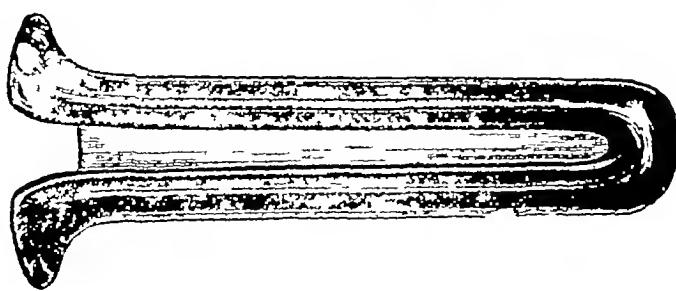
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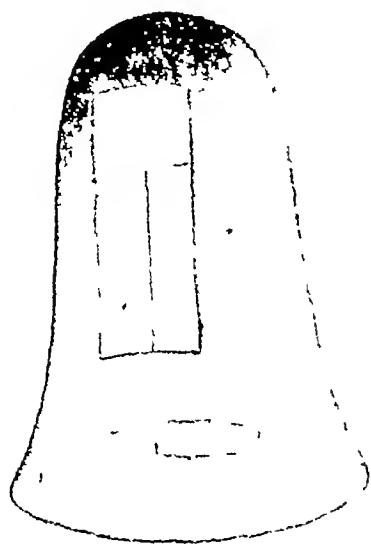
PLATE XX

THE NĀDĪ YANTRA OR TUBULAR INSTRUMENTS

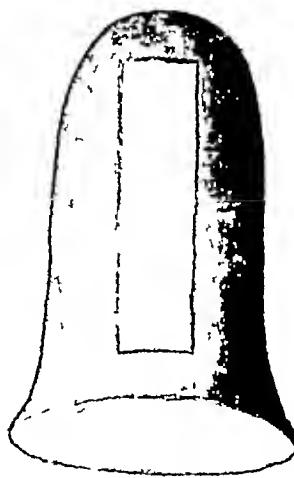
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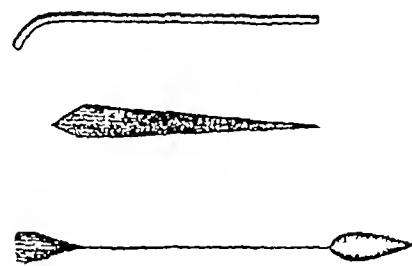
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PLATE XXI

NĀDĪ YANTRA OR TUBULAR INSTRUMENTS

TUBULAR INSTRUMENTS FOR NOSE

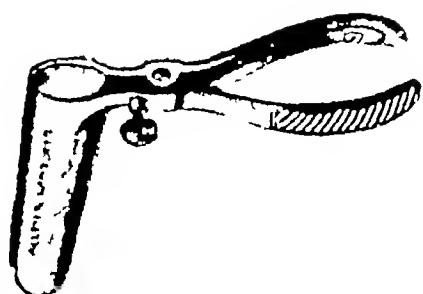
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Plate XXI



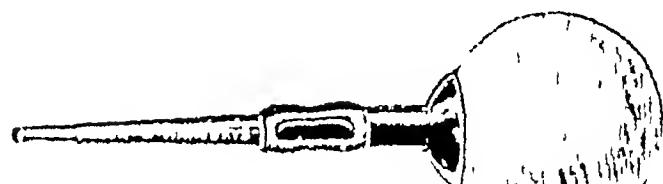
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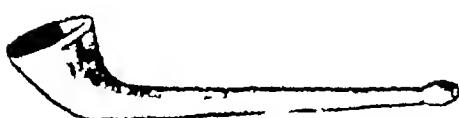
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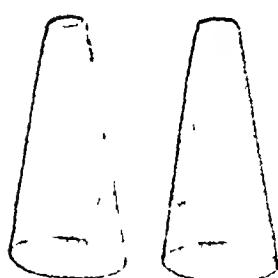
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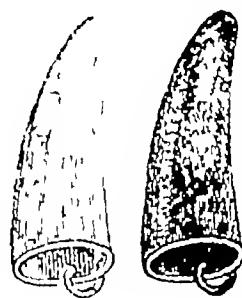
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THE SURGICAL INSTRUMENTS OF THE HINDUS

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THE NĀDĪ YANTRA OR TUBULAR INSTRUMENTS

TUBULAR INSTRUMENTS FOR FINGER

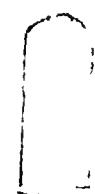
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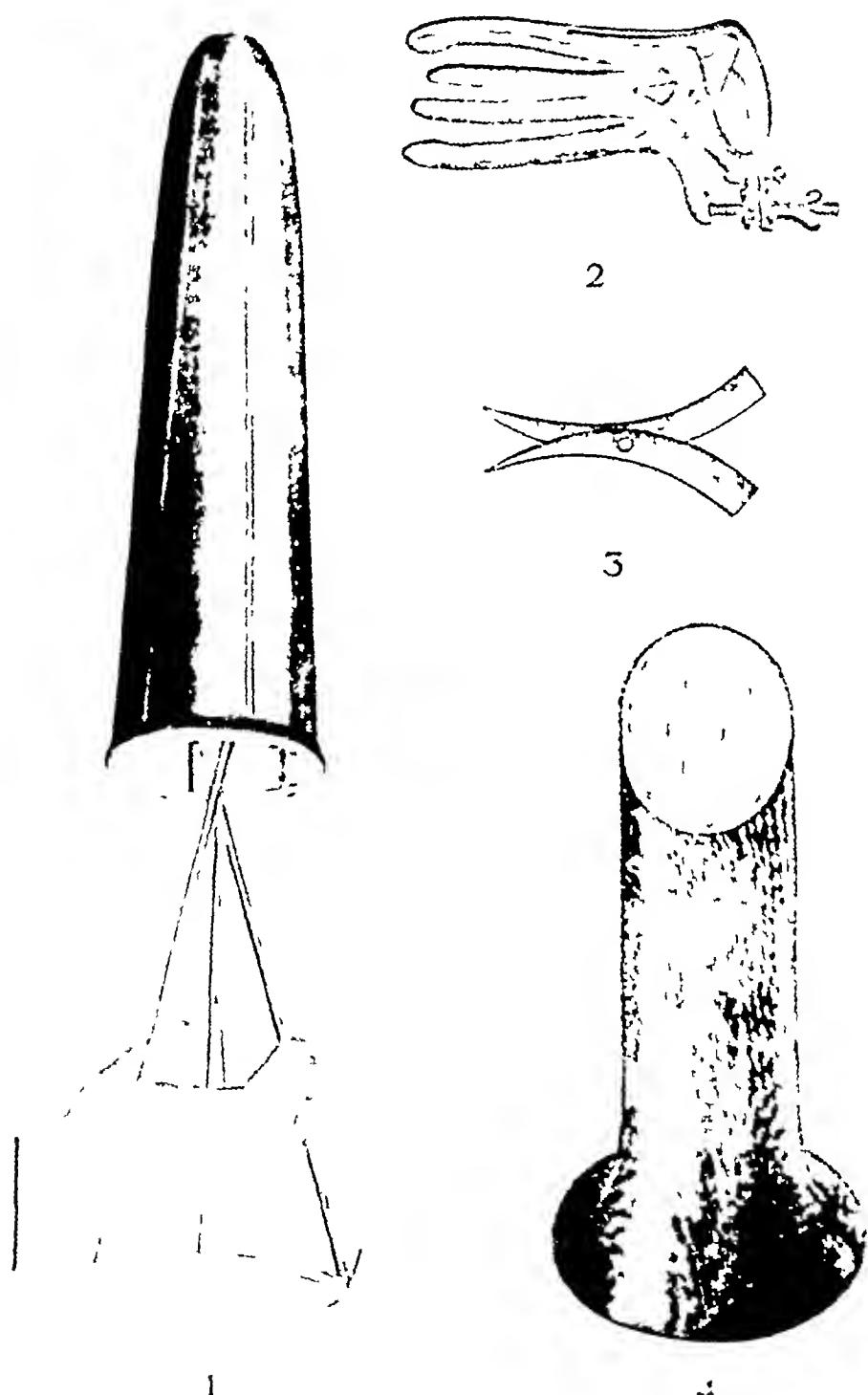
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Plate XXIII



THE SURGICAL INSTRUMENTS OF THE HINDUS

PLATE XXIV

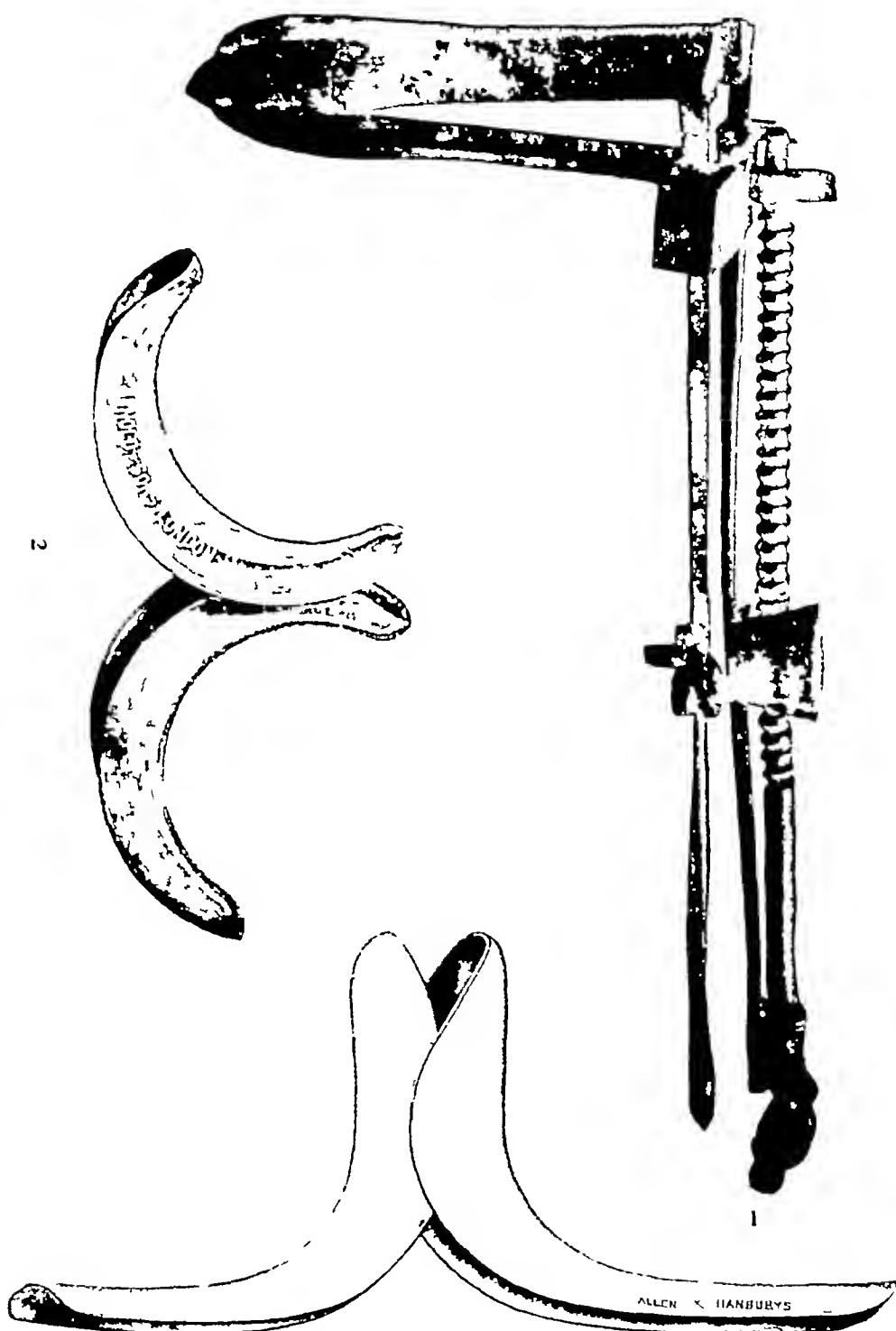
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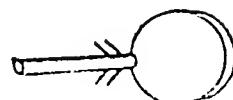
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Plate XXV



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PLATE XXVI

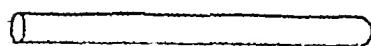
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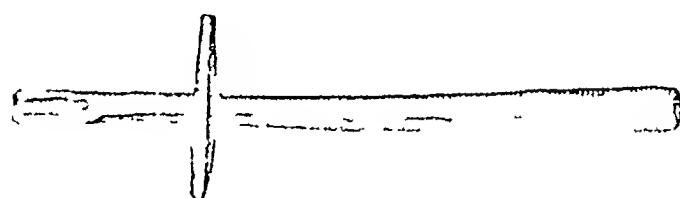
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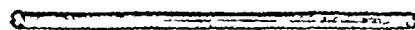
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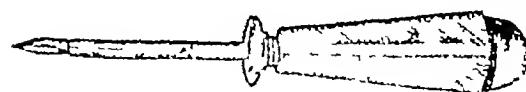
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THE SURGICAL INSTRUMENTS OF THE HINDUS

PLATE XXVII

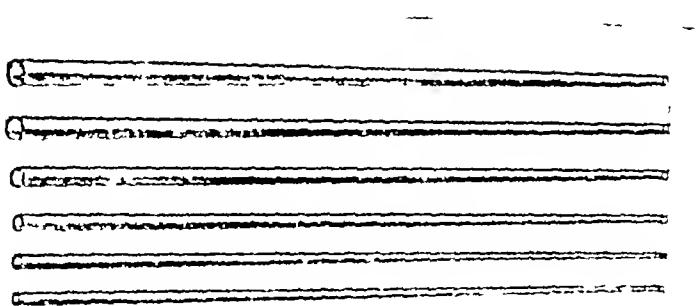
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TUBULAR INSTRUMENTS FOR URETHRAL STRICTURE

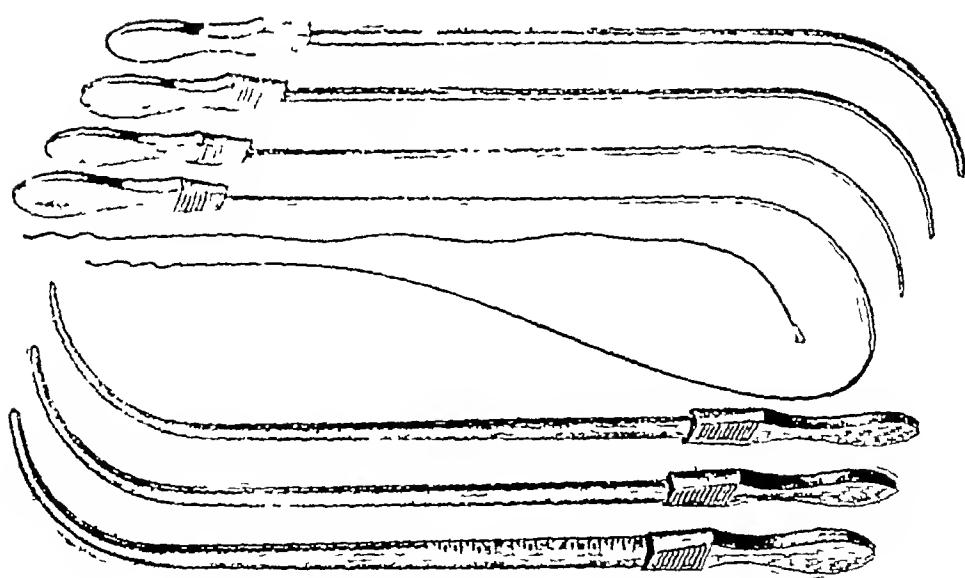
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THE SURGICAL INSTRUMENTS OF THE HINDUS

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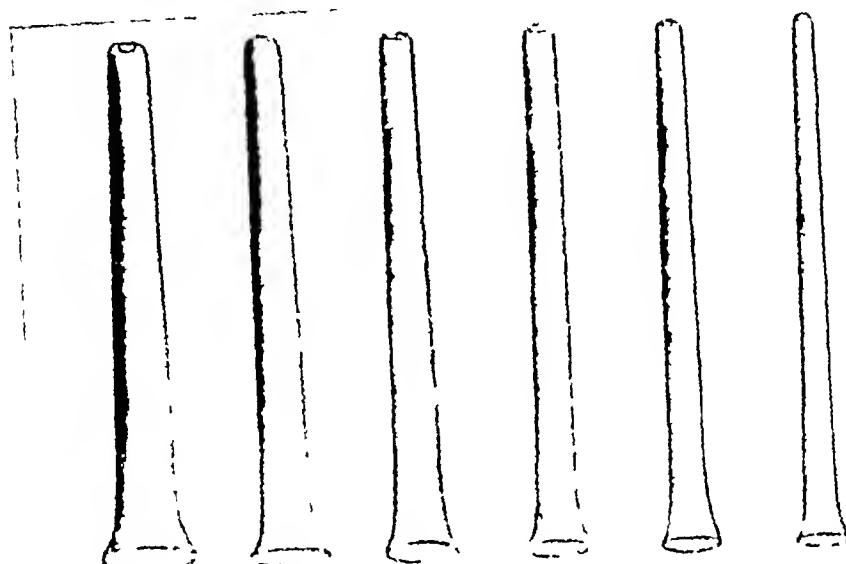
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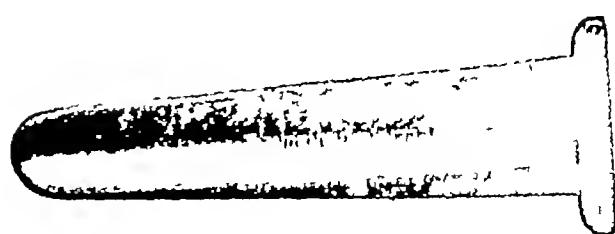
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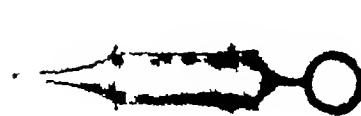
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Fig. 23.



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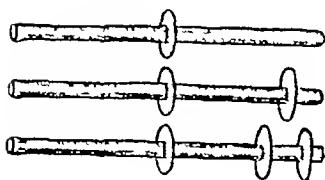
THE NĀDĪ YANTRA OR TUBULAR INSTRUMENTS
UTTARA-VASTI

TUBULAR INSTRUMENTS FOR THE URETHRA

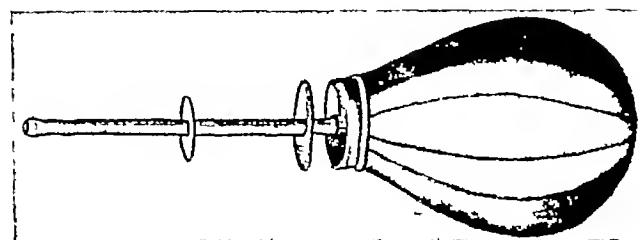
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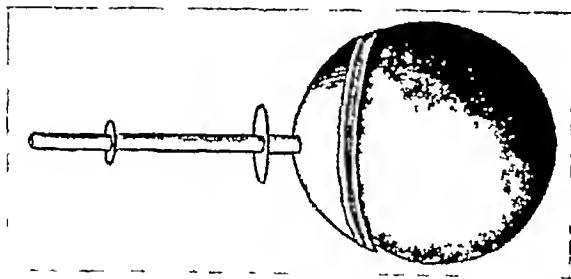
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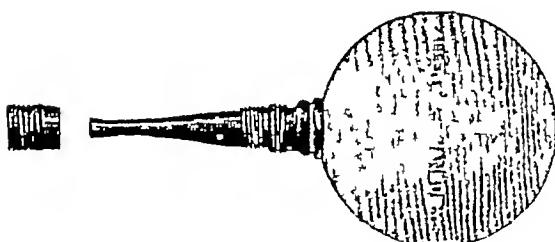
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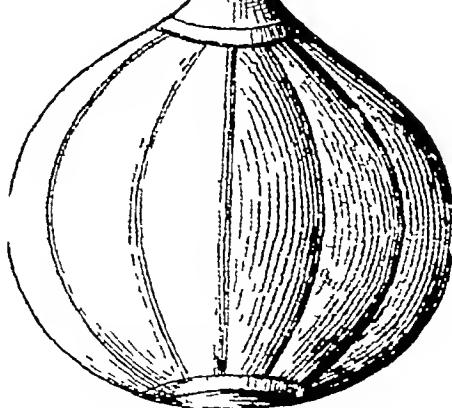
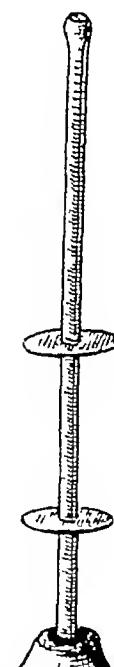
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PLATE XXXI

THE NĀDĪ YANTRA OR TUBULAR INSTRUMENTS

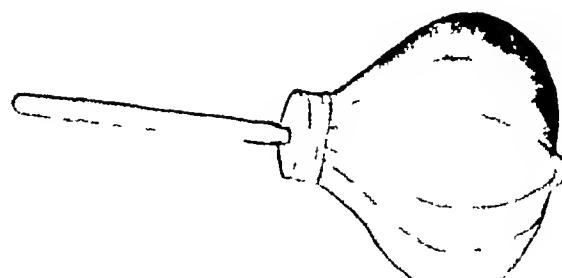
UTTARAVASTI

TUBULAR INSTRUMENTS FOR VAGINA AND UTERUS

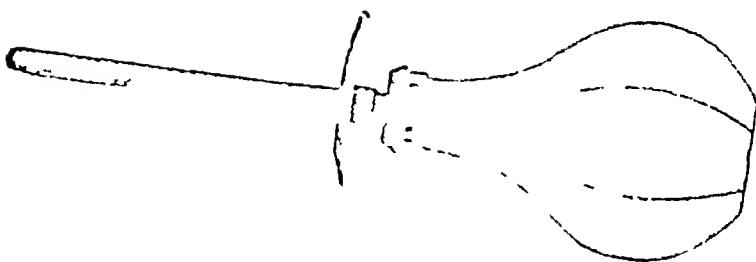
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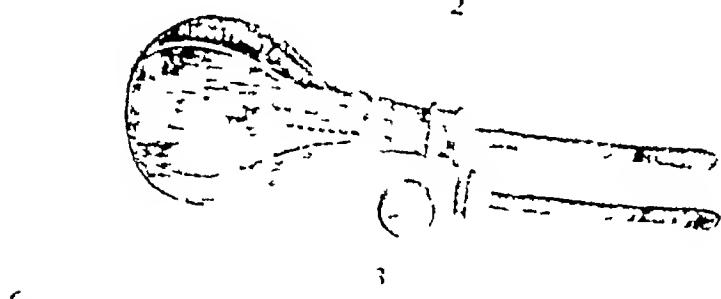
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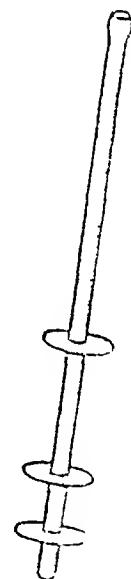
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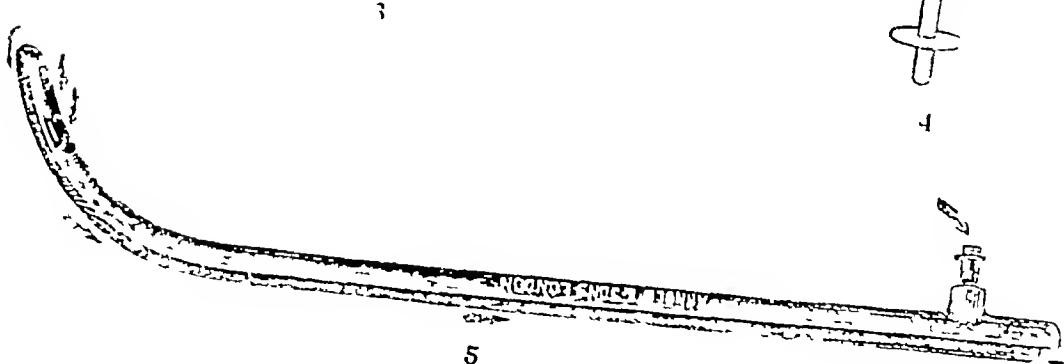
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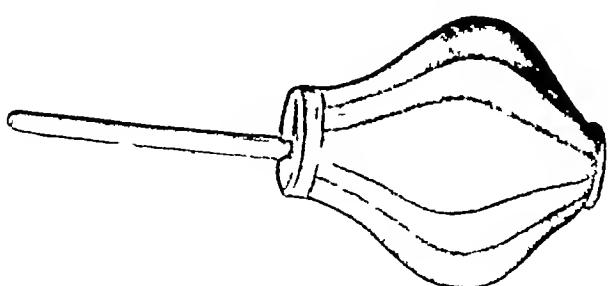
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PLATE XXXII

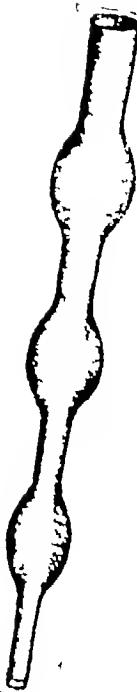
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TUBULAR INSTRUMENTS FOR INHALATION AND FUMIGATION

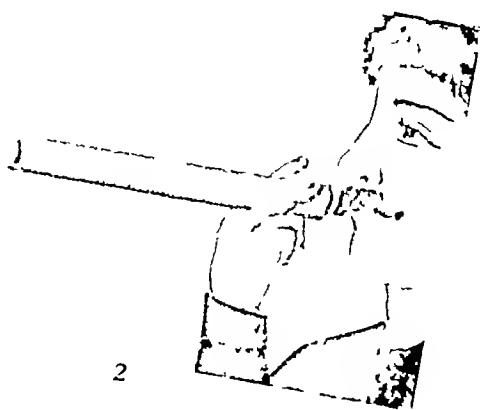
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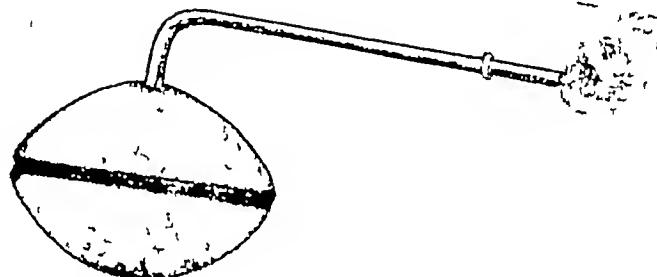
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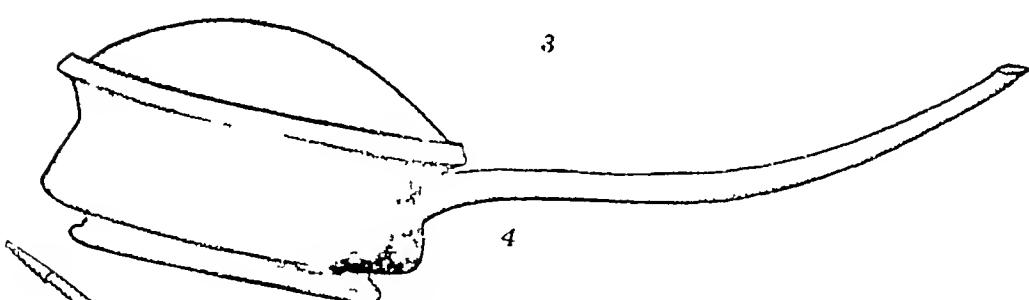
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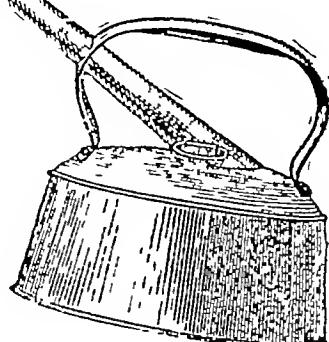


PLATE XXXIII

THE NĀDĪ YANTRĀ OR TUBULAR INSTRUMENTS

TUBULAR INSTRUMENTS FOR CUPPING

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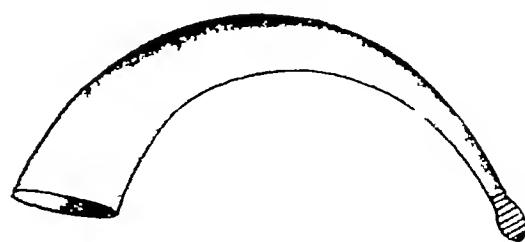
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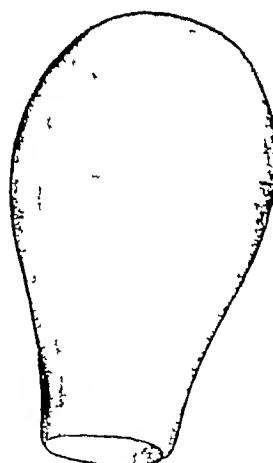
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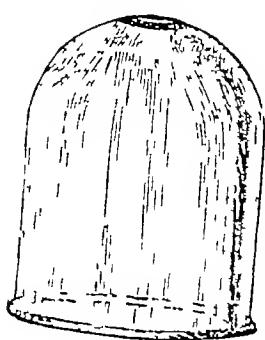
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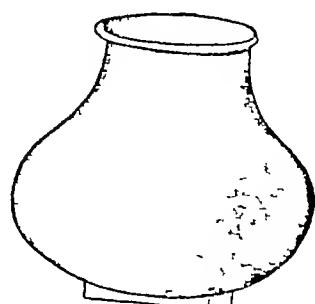
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PLATE XXXIV

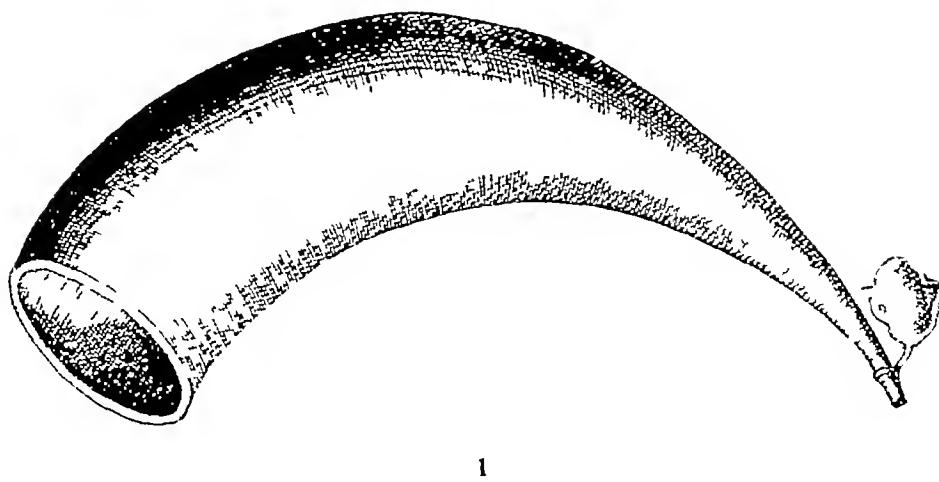
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TABULAR INSTRUMENTS FOR CUPPING

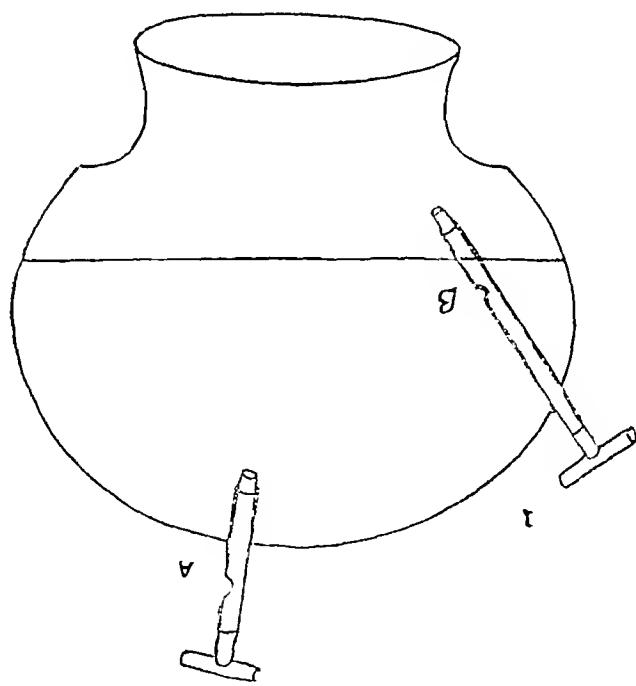
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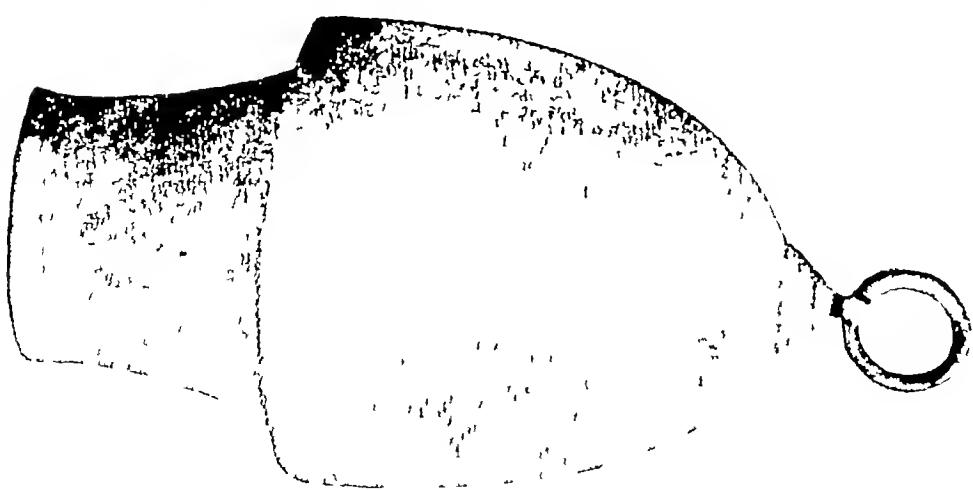
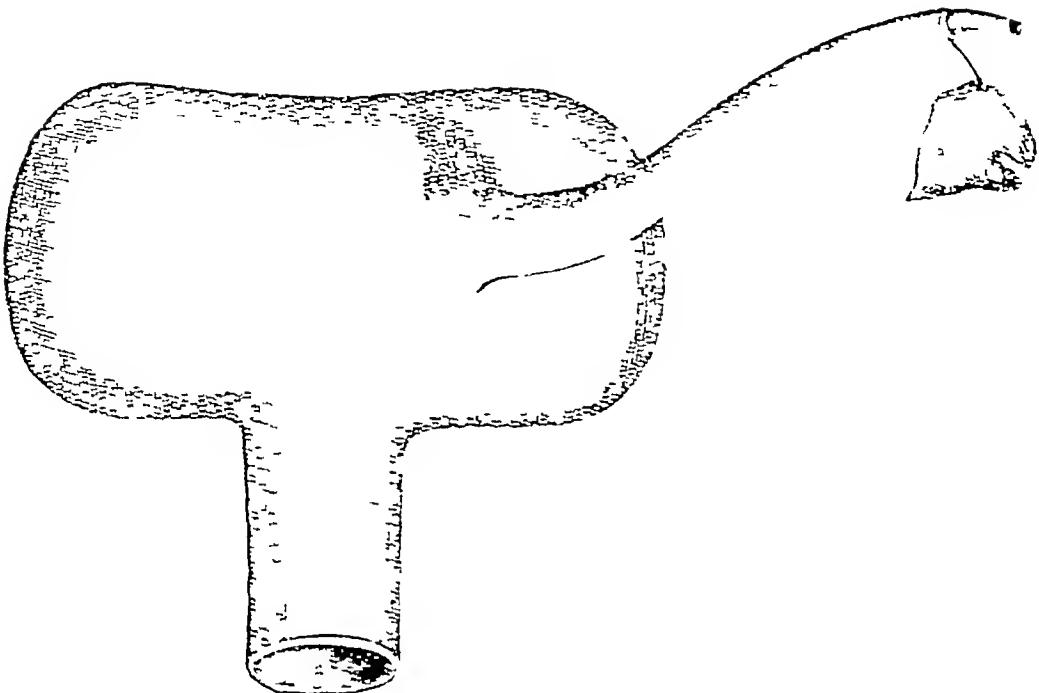
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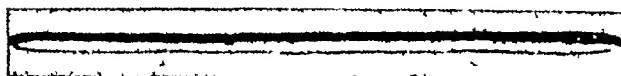
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ŚALĀKĀ OR RODS

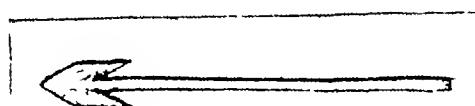
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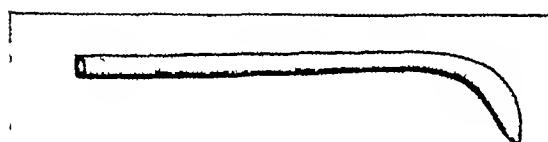
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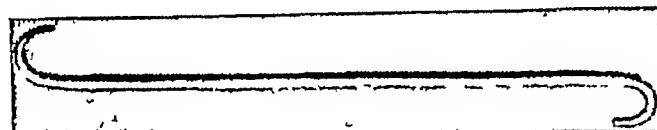
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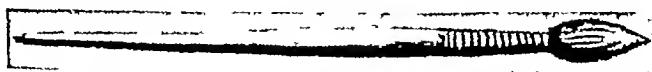
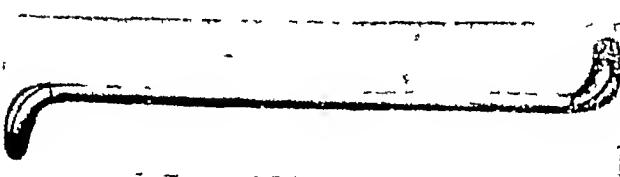
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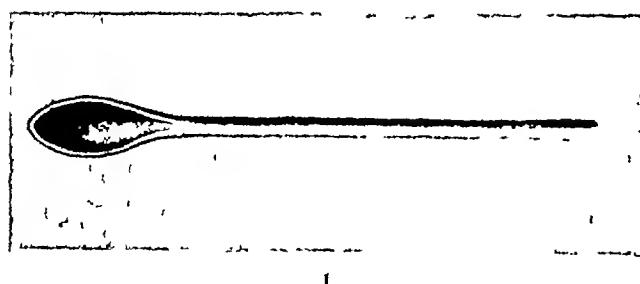
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ŚALĀKĀ OR RODS

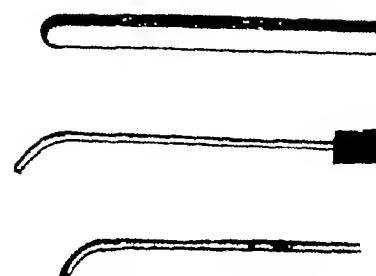
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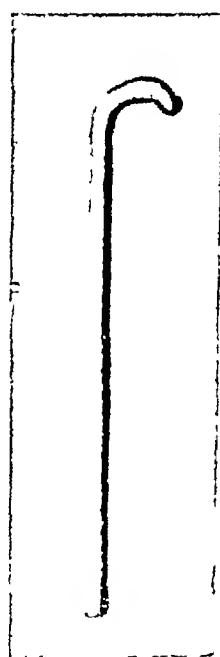
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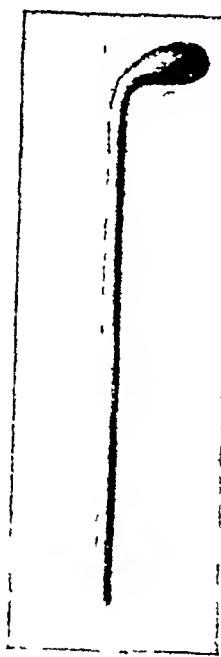
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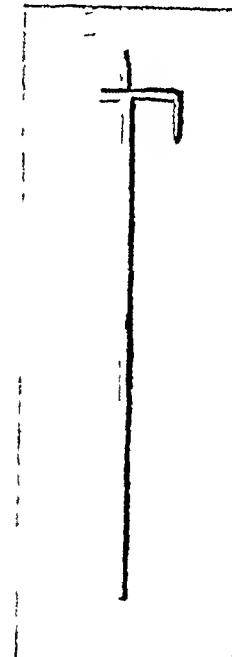
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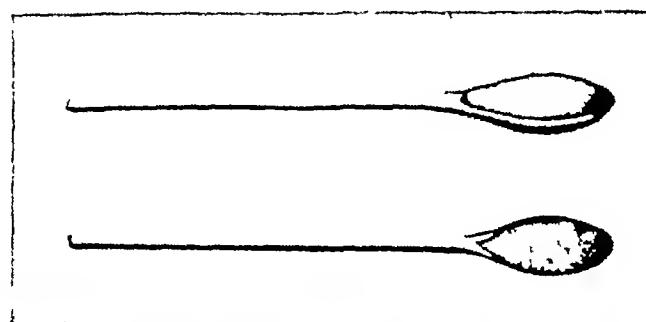
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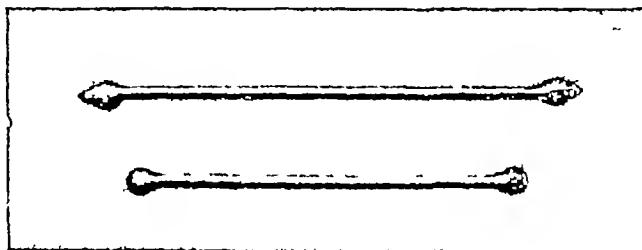
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ŚALĀKĀ OR RODS

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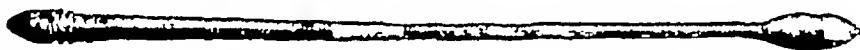
Plate XXXVIII



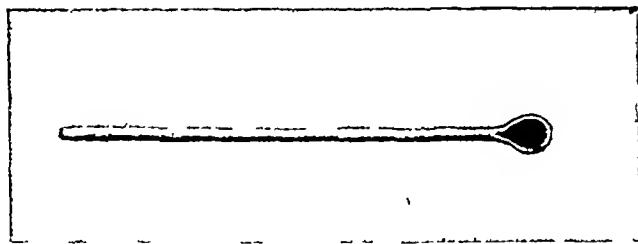
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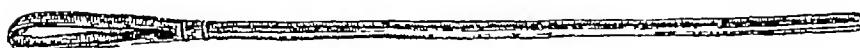
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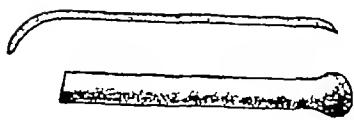
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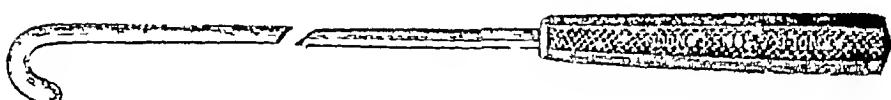
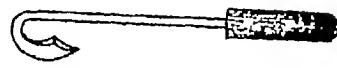
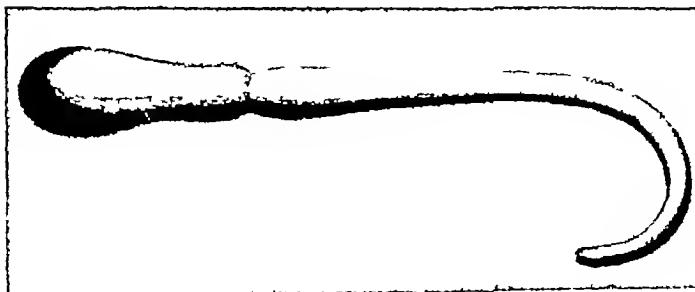
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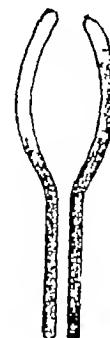
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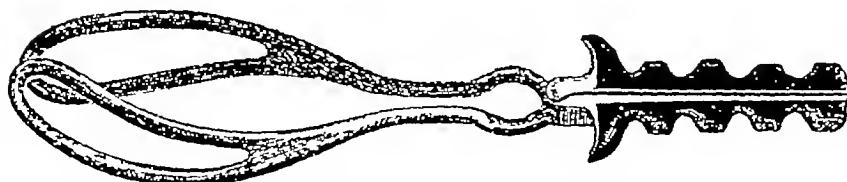
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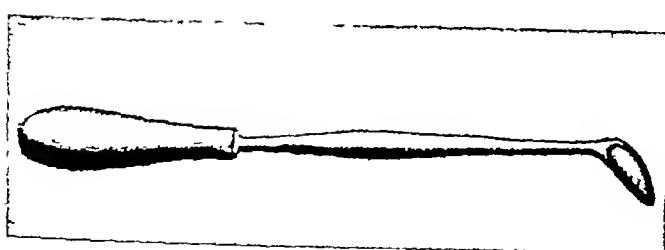
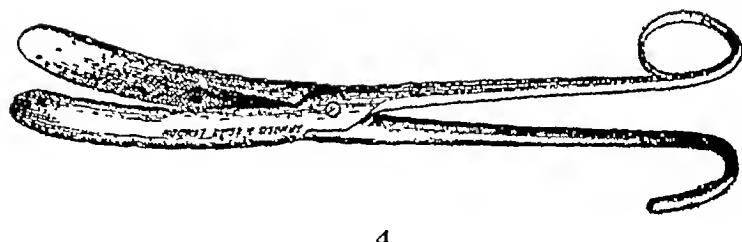
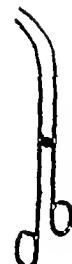
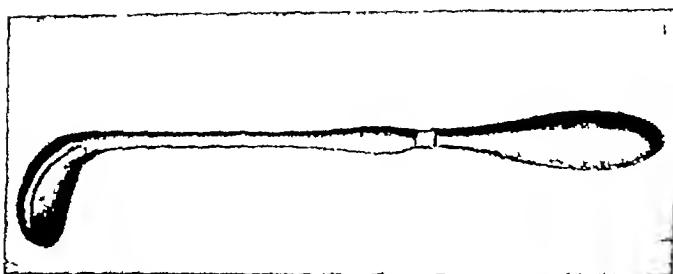


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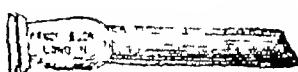
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UPAYANTRA OR ACCESSORY INSTRUMENTS

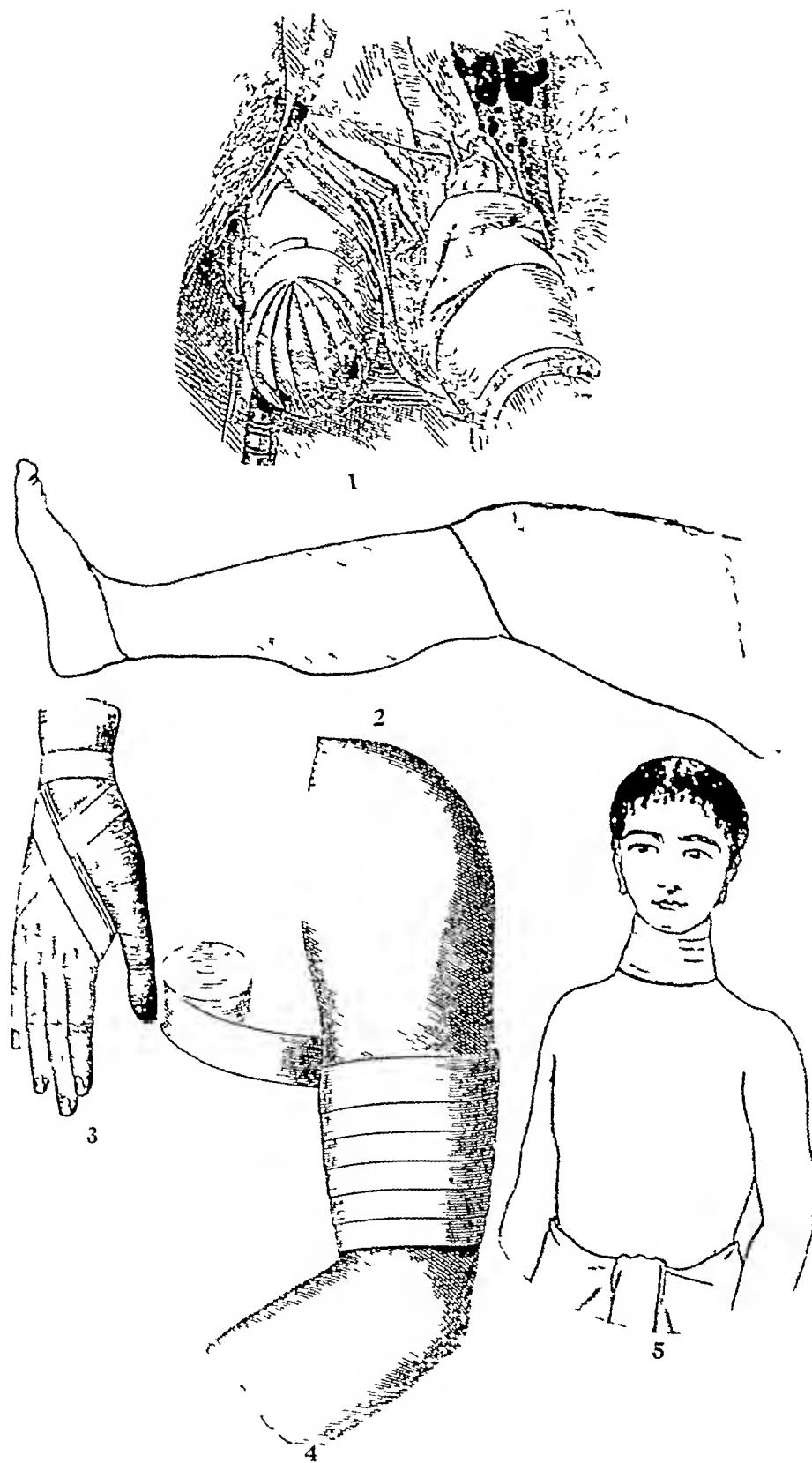
PATTA OR BANDAGES

GURU

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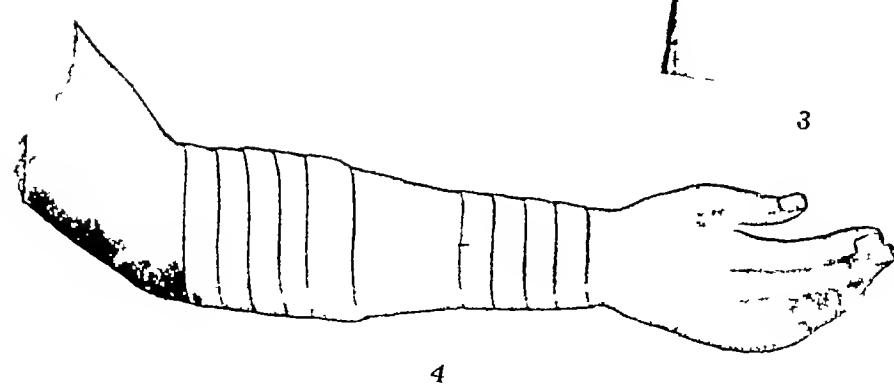
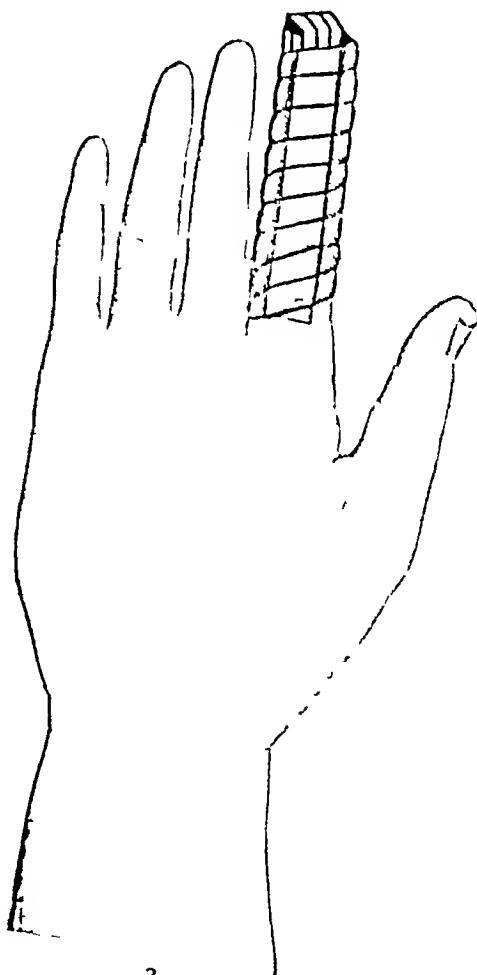
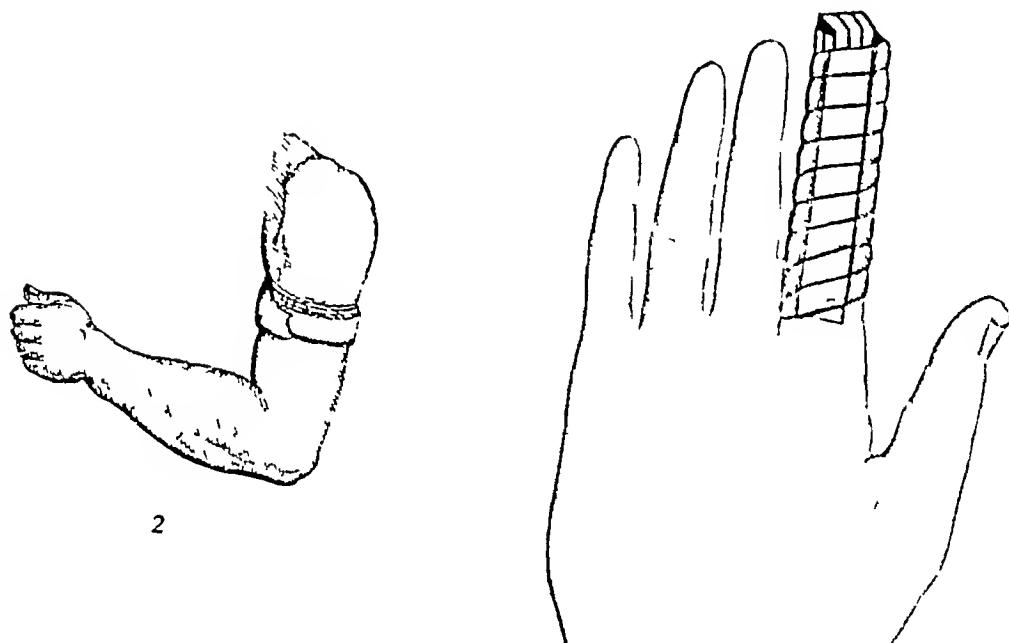
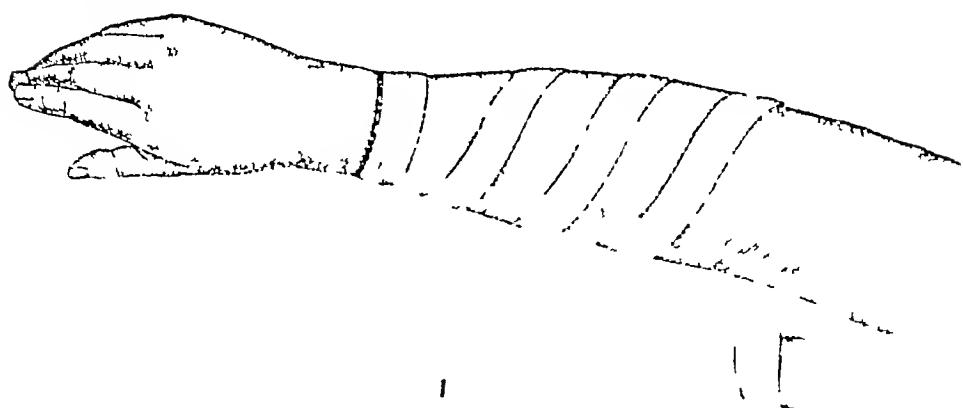


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PATTA OR BANDAGES

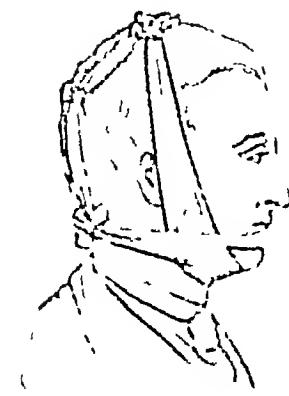
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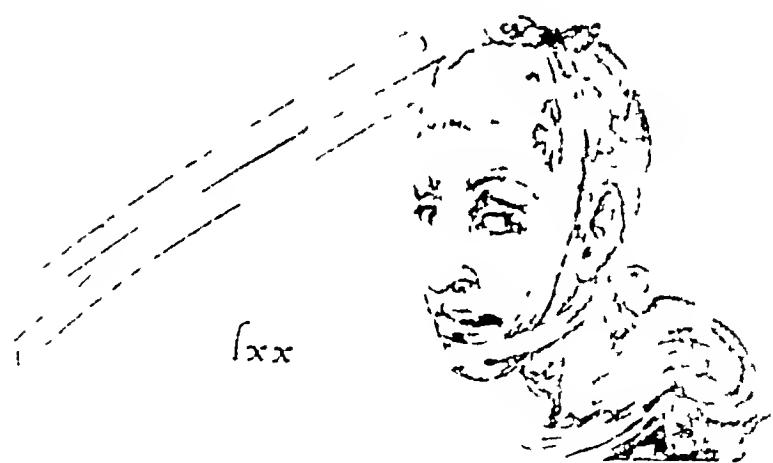


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PLATE XLV

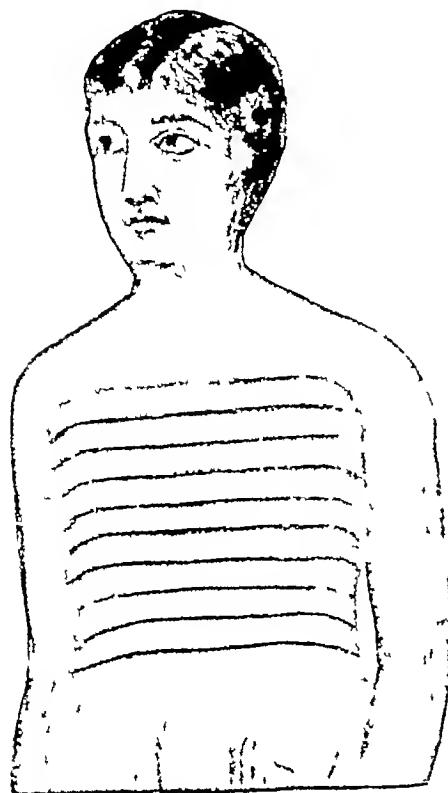
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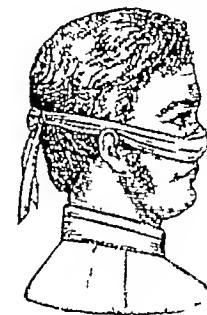
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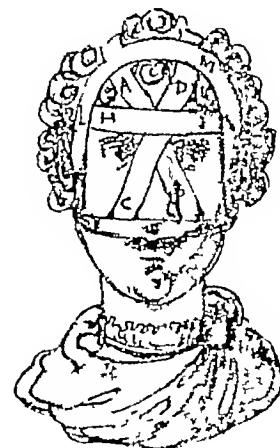
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THE SURGICAL INSTRUMENTS OF THE HINDUS

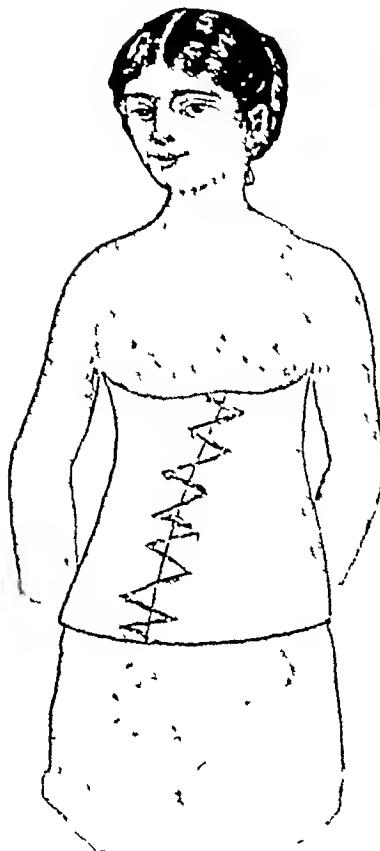
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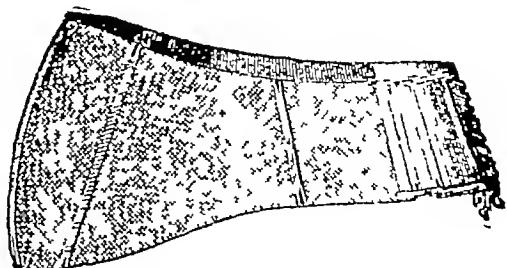
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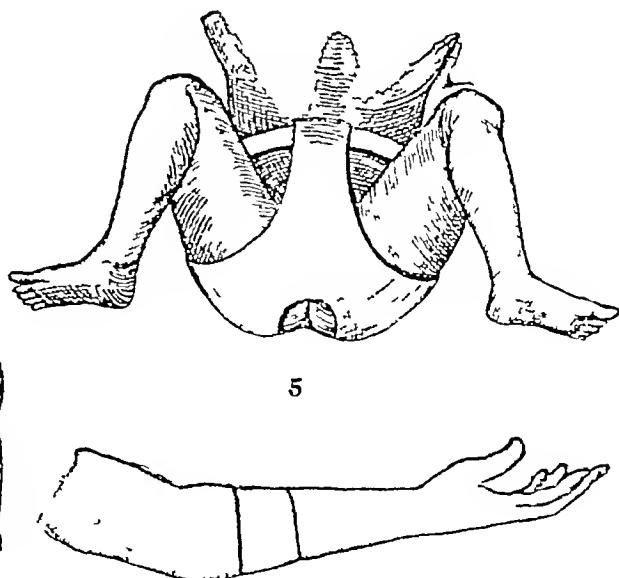
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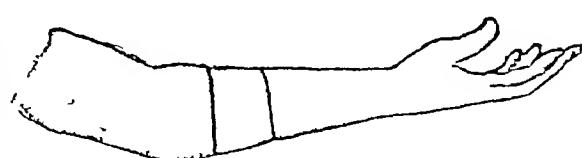
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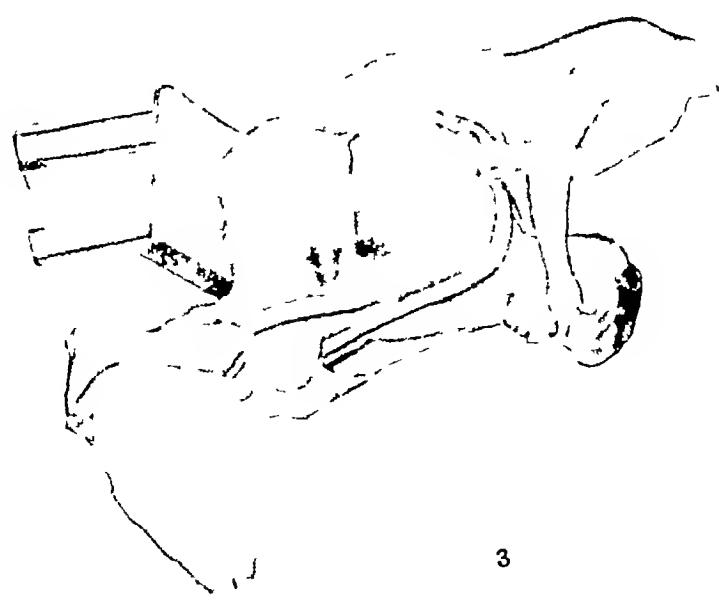
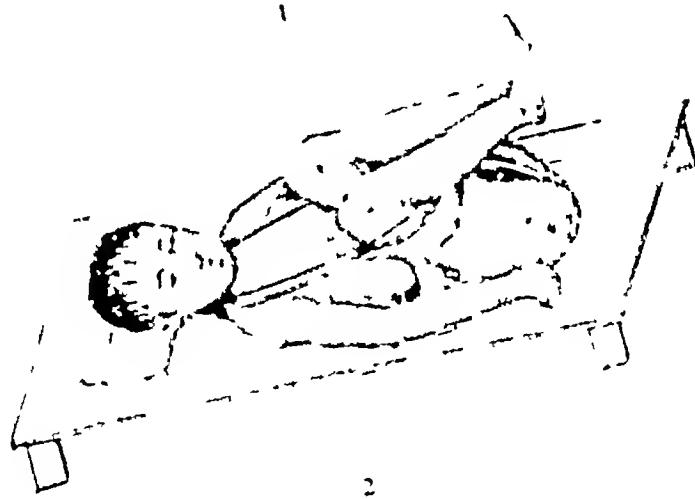
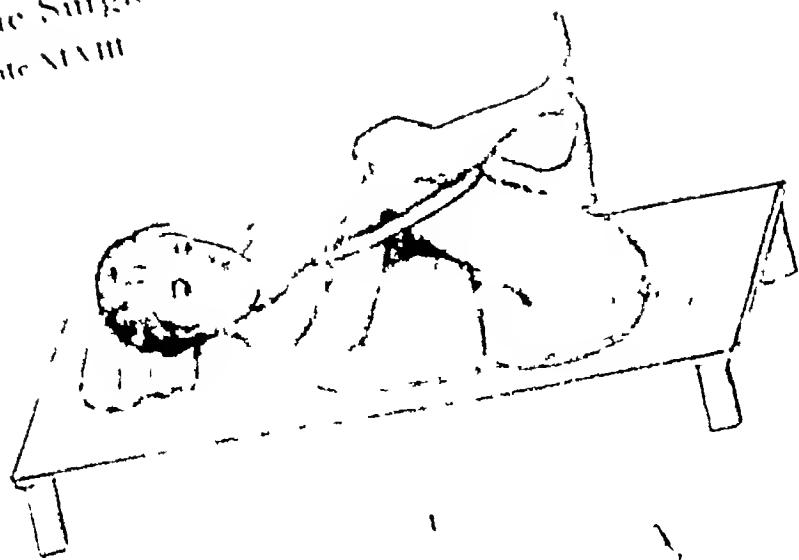


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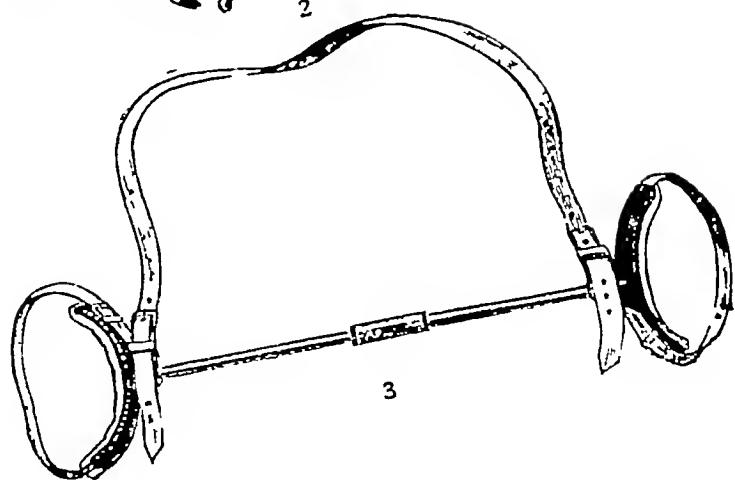
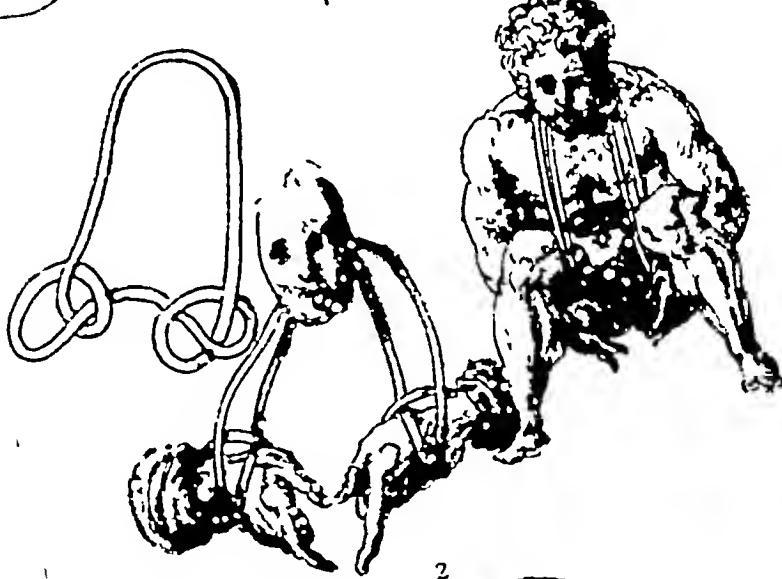
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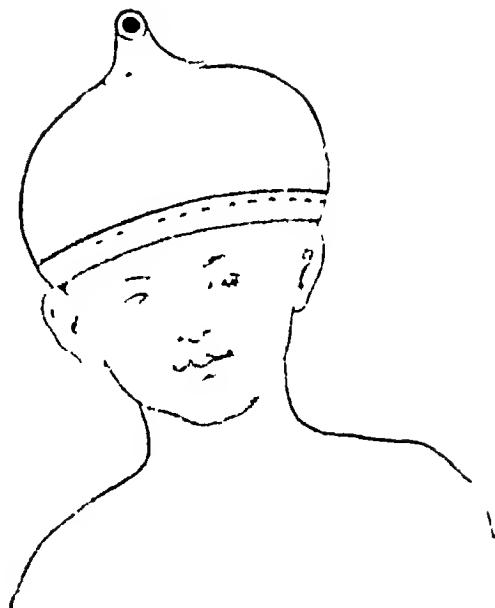
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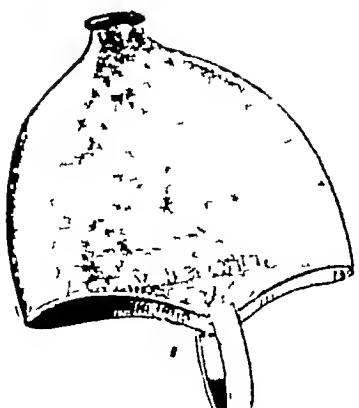
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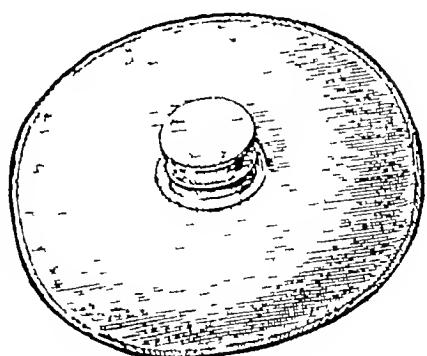
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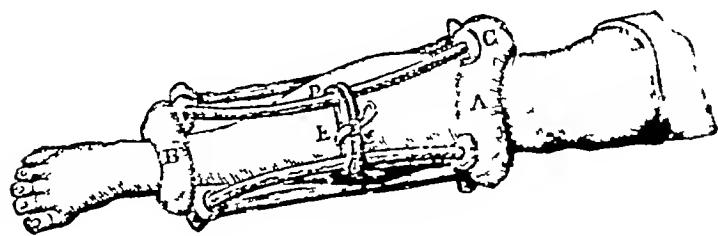
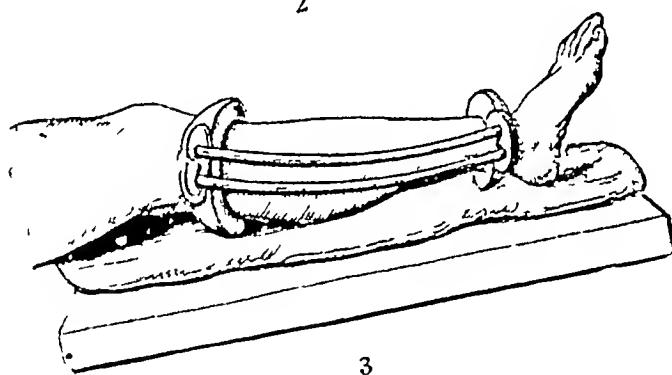
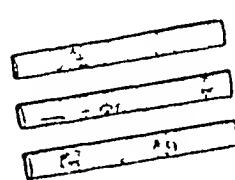
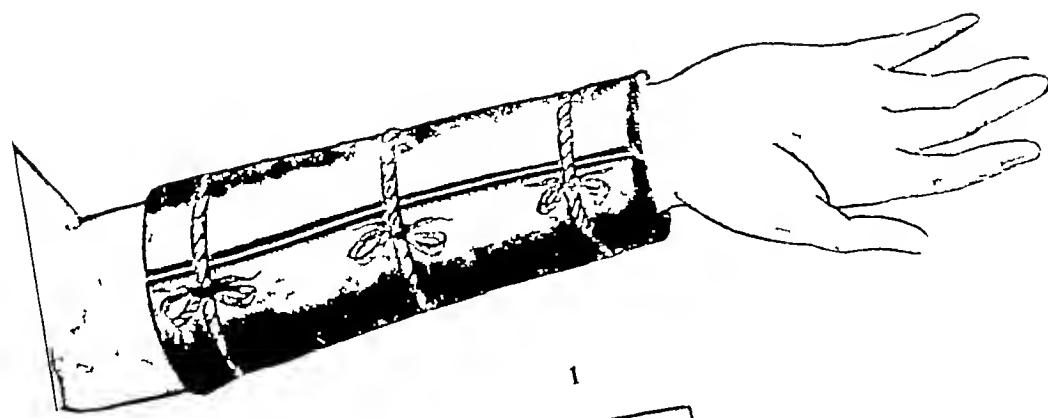


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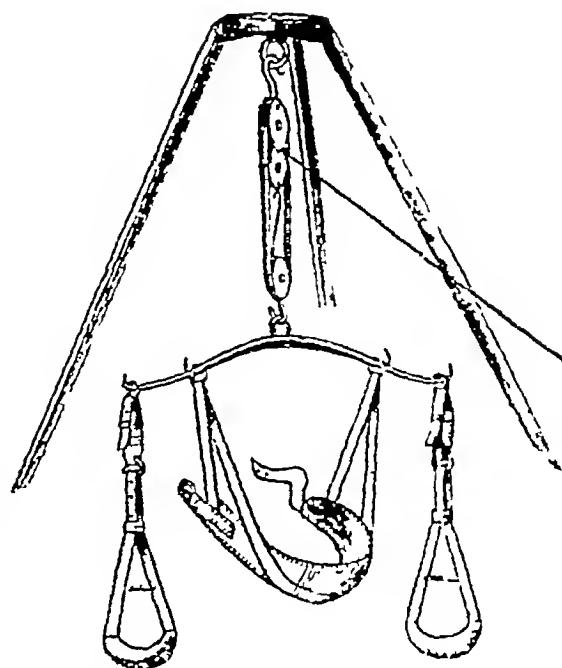
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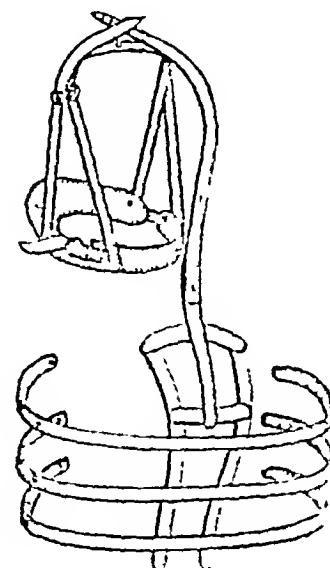
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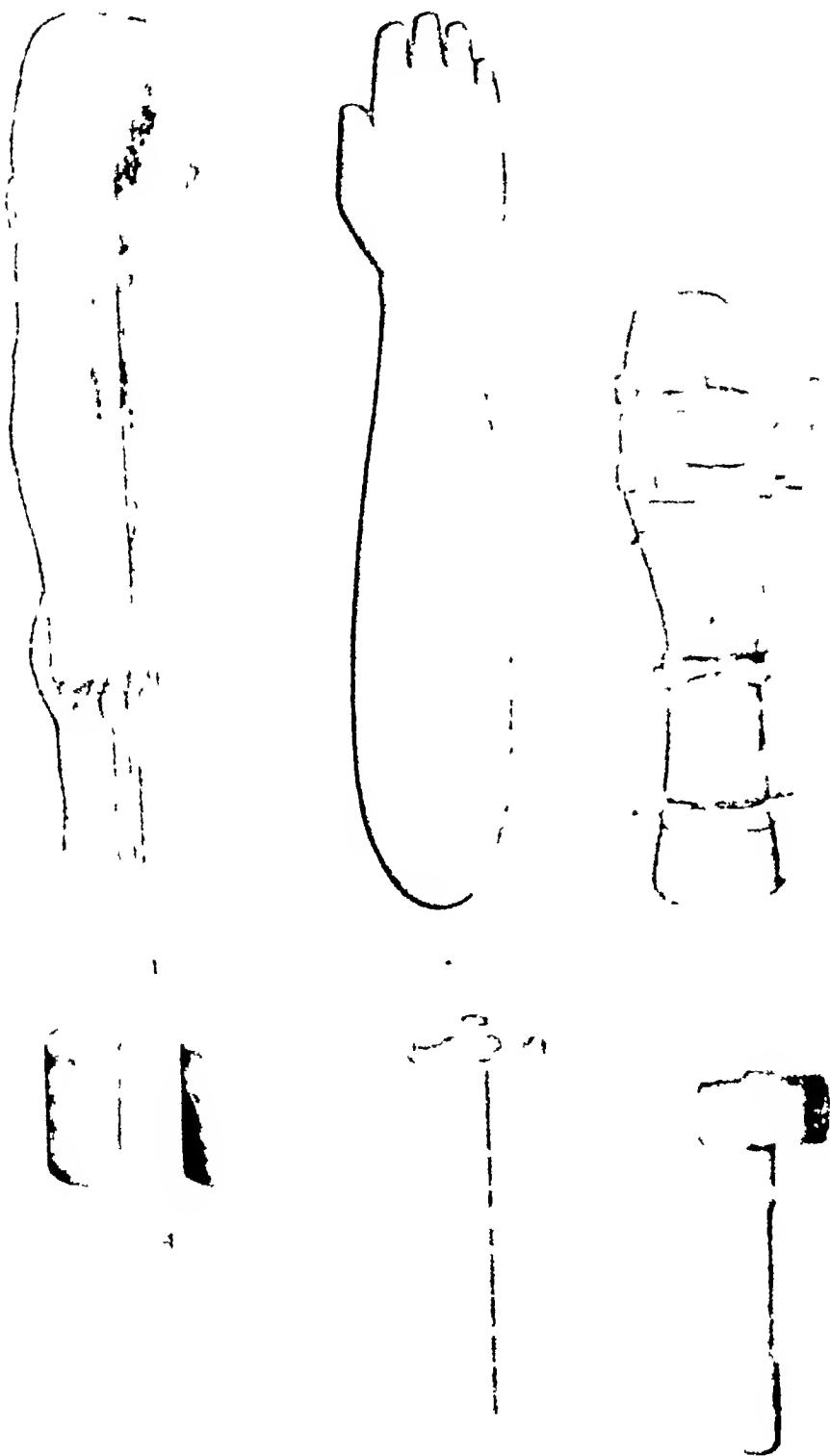
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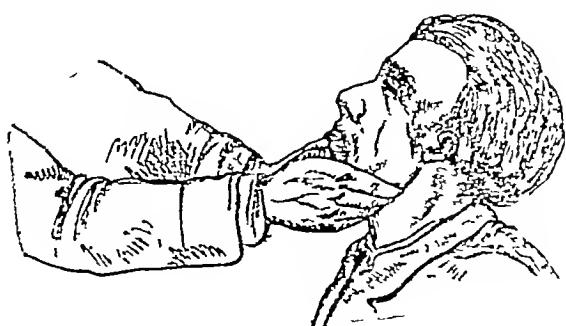
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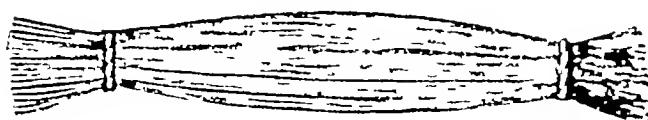
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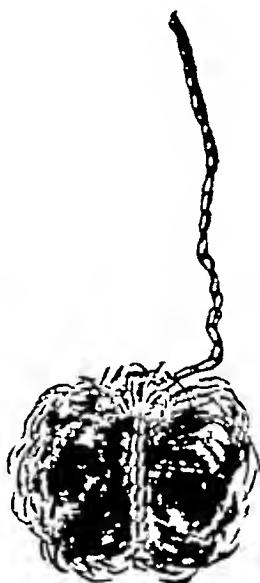
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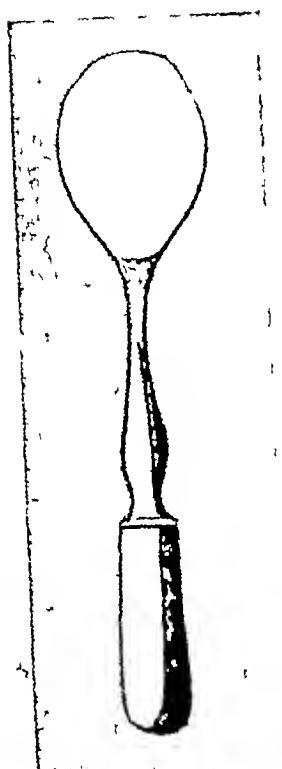
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THE MANDALĀGRA ŚASTRA OR ROUND HEADED KNIFE

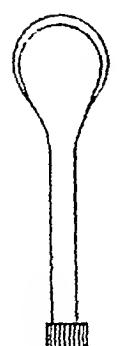
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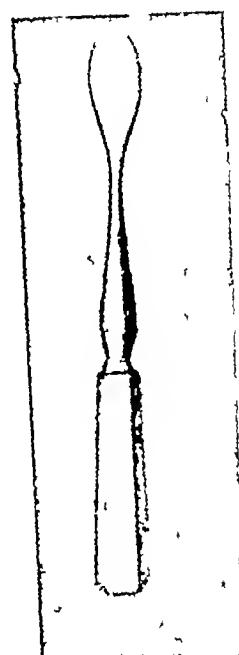
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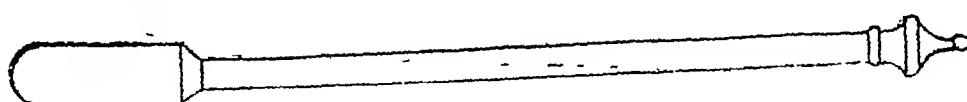
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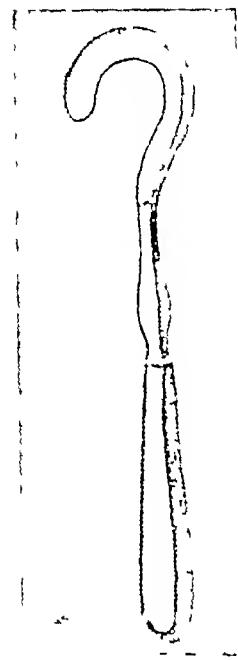
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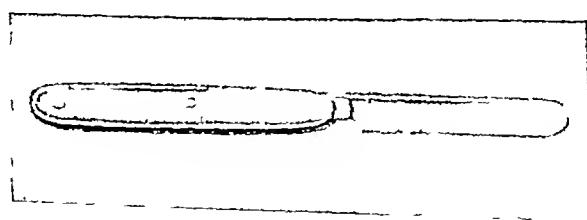
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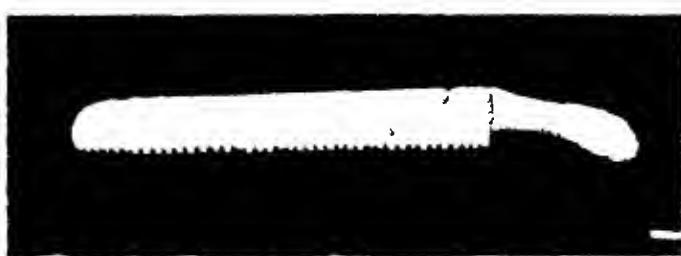
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KARAPATRA SASTRA OR SAW

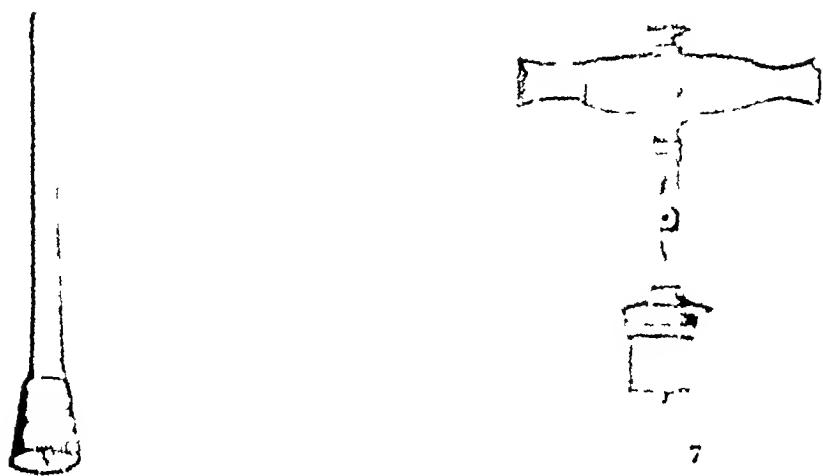
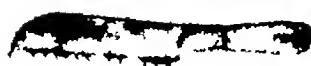
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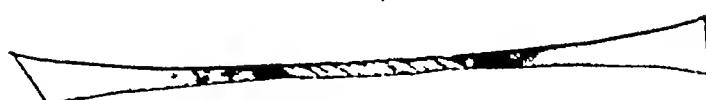
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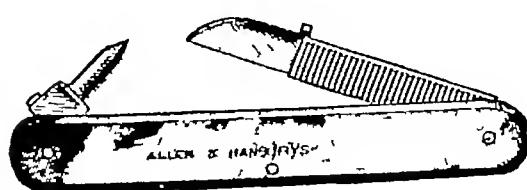
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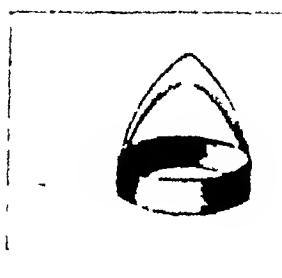
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MUDRIKĀ ŚASTRA OR FINGER KNIFE

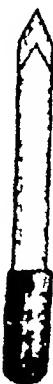
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The Surgical Instruments of the Hindus.

Plate LXIII



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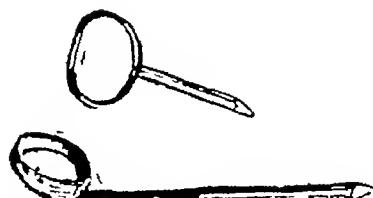
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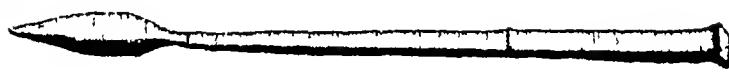
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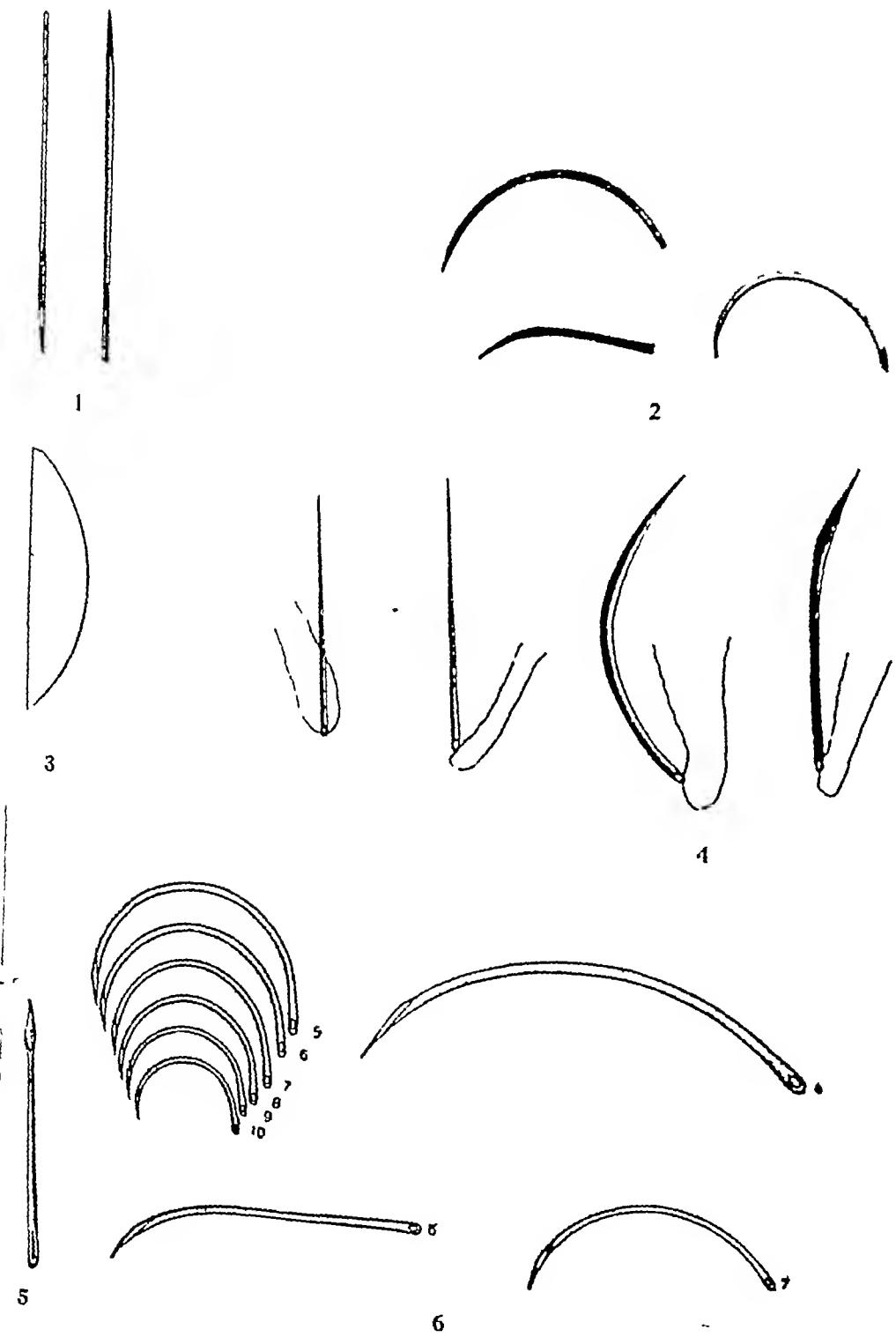


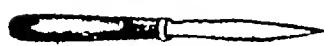
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KUSUPATRA SASTRA

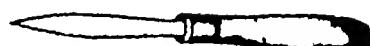
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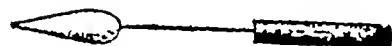
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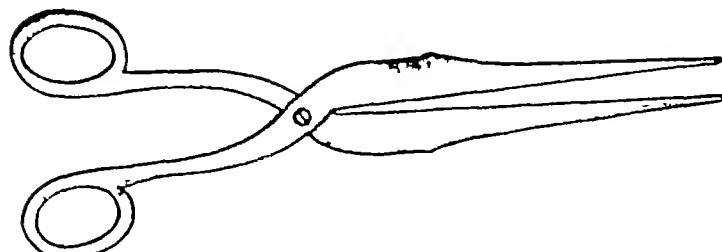
PLATE LXVII

ŚARĀRIMUKHA ŚASTRA OR SCISSORS

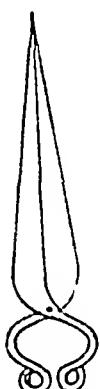
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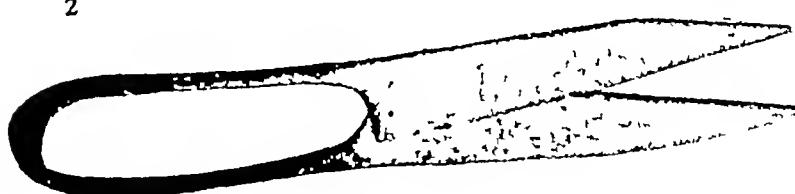
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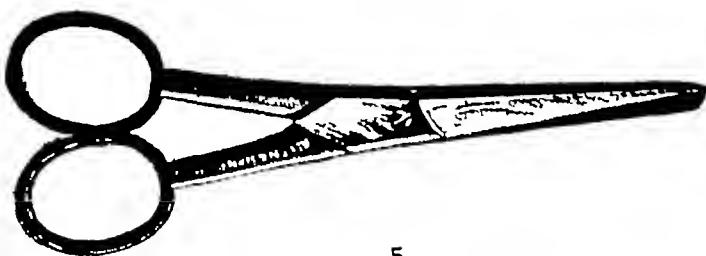
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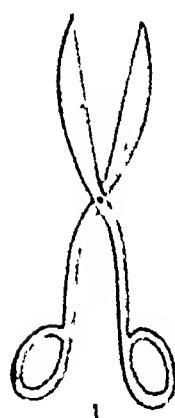
PLATE LXVIII

ANTARMUKHA SASTRA OR SCISSORS

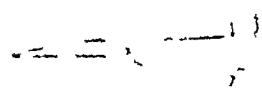
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5 —Scissors as used by the Greeks Adams Vol I Pl III Fig 8	251

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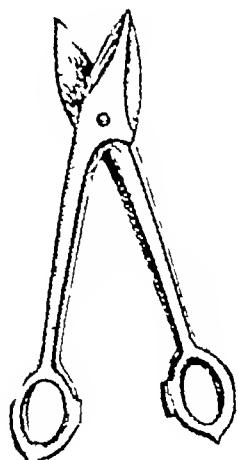
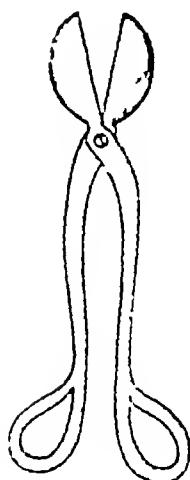
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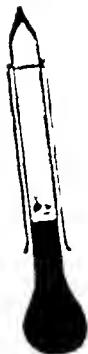
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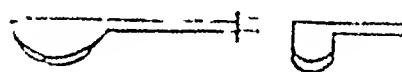
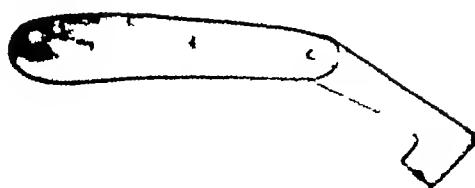
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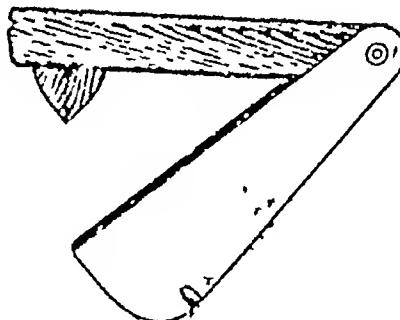
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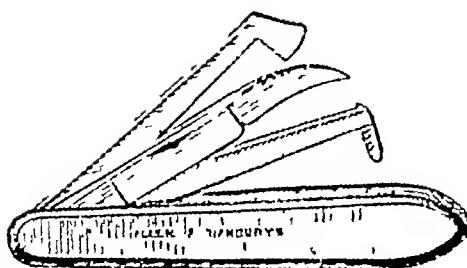
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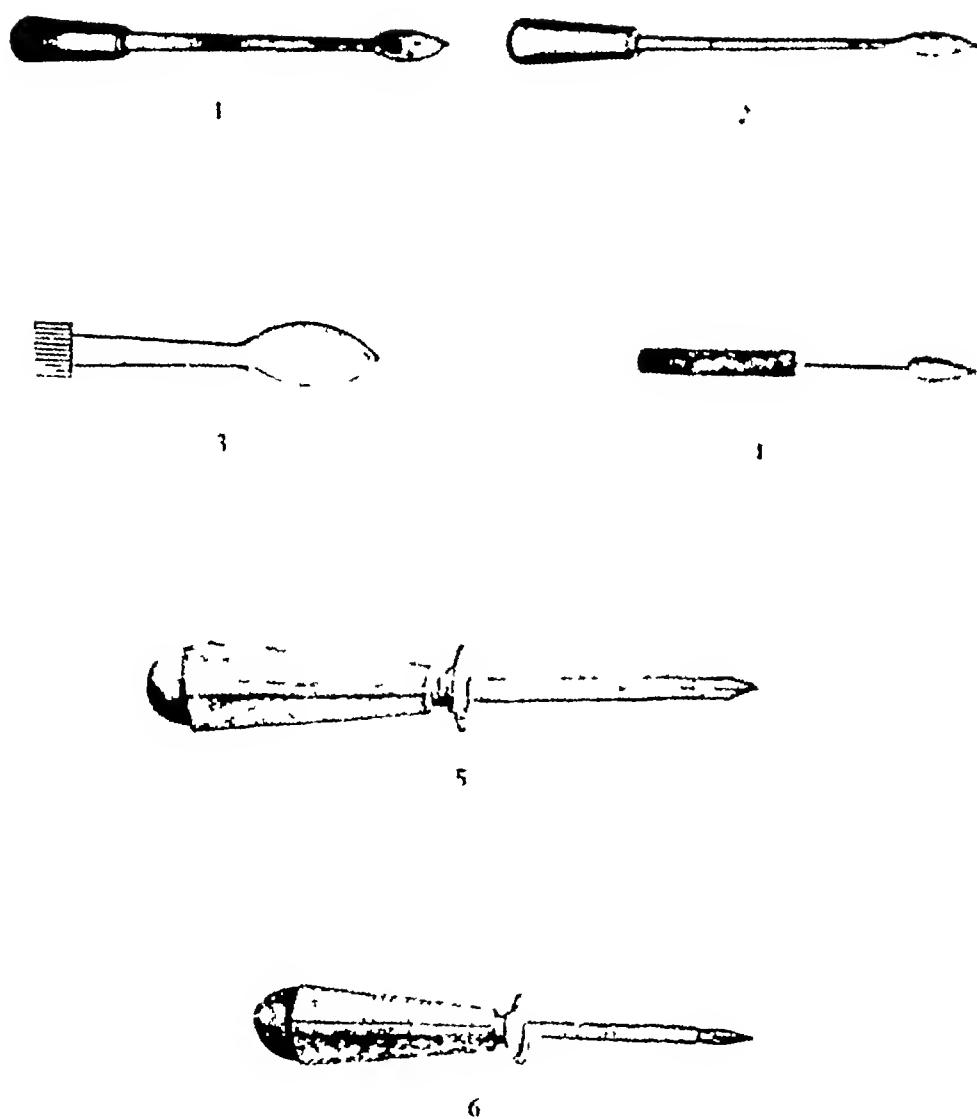


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THE SURGICAL INSTRUMENTS OF THE HINDUS

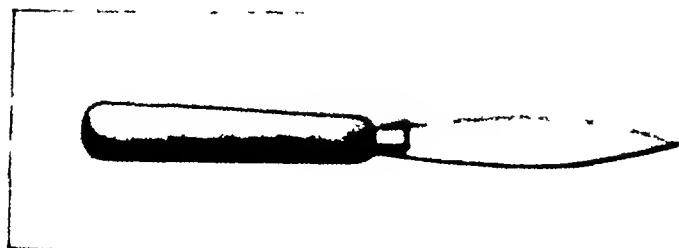
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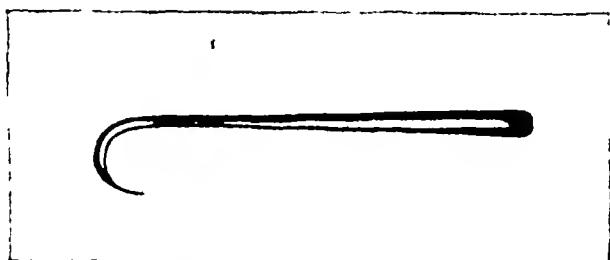
PLATE LXXIV

VADIS A SASTRA OR SHARP HOOK

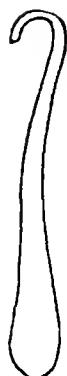
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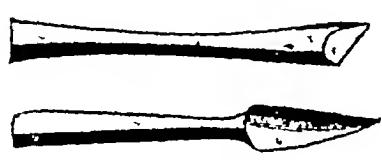
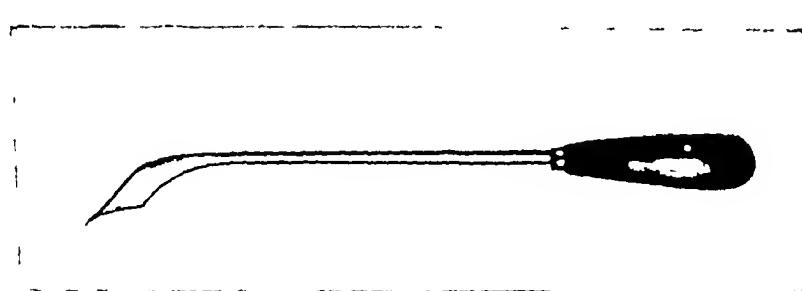
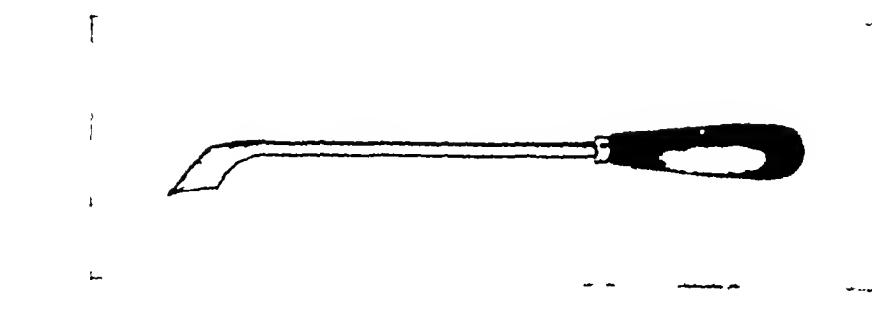


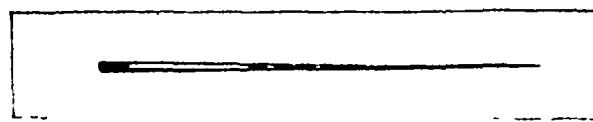
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ESANĪ OR SHARP PROBES.

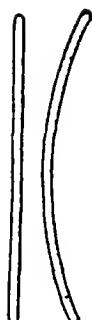
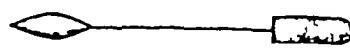
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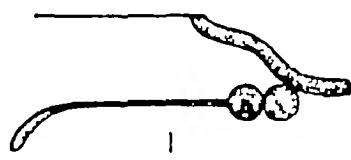
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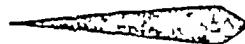
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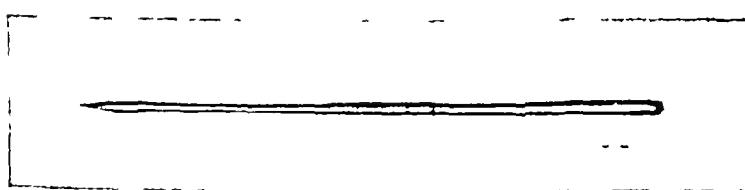
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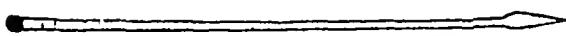
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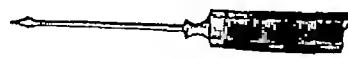
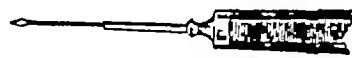
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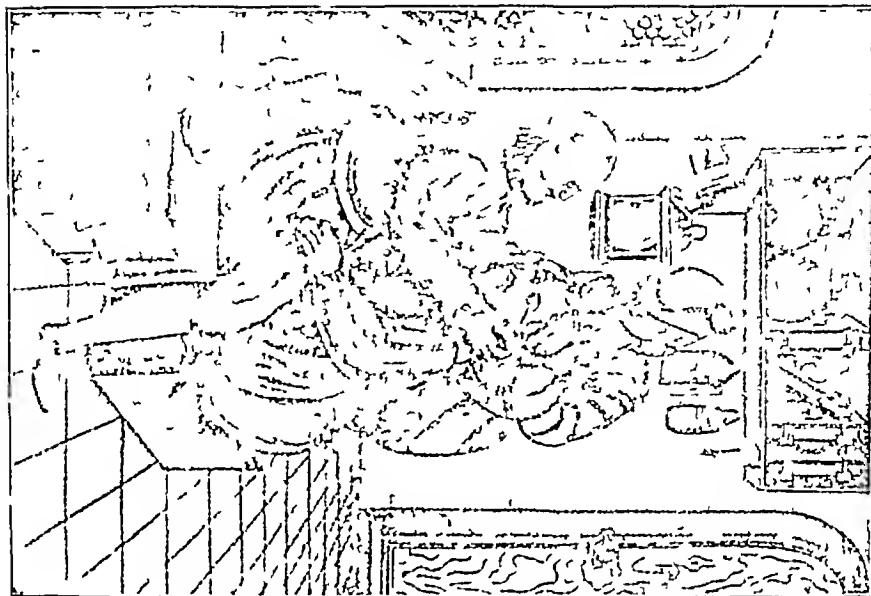
PLATE LXXVII

OPERATION OF CATARACT.

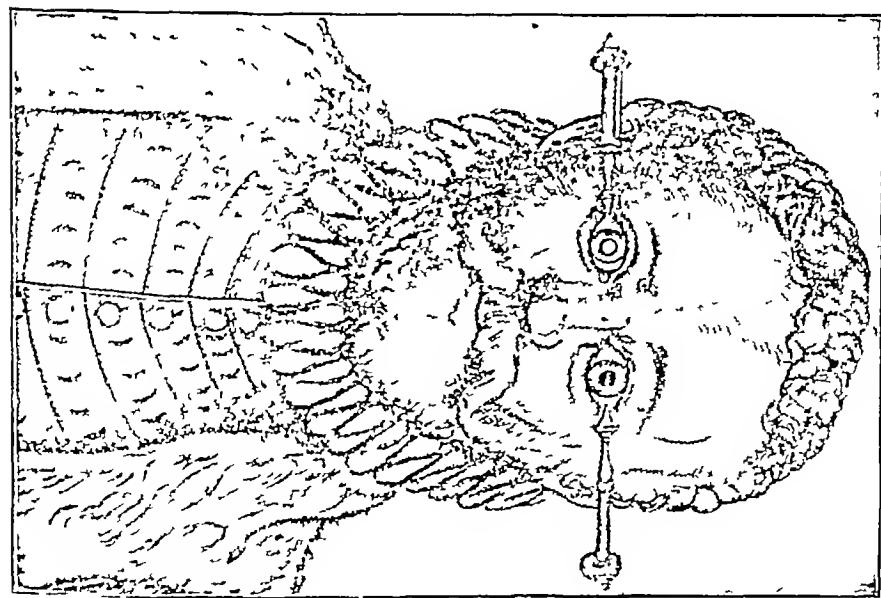
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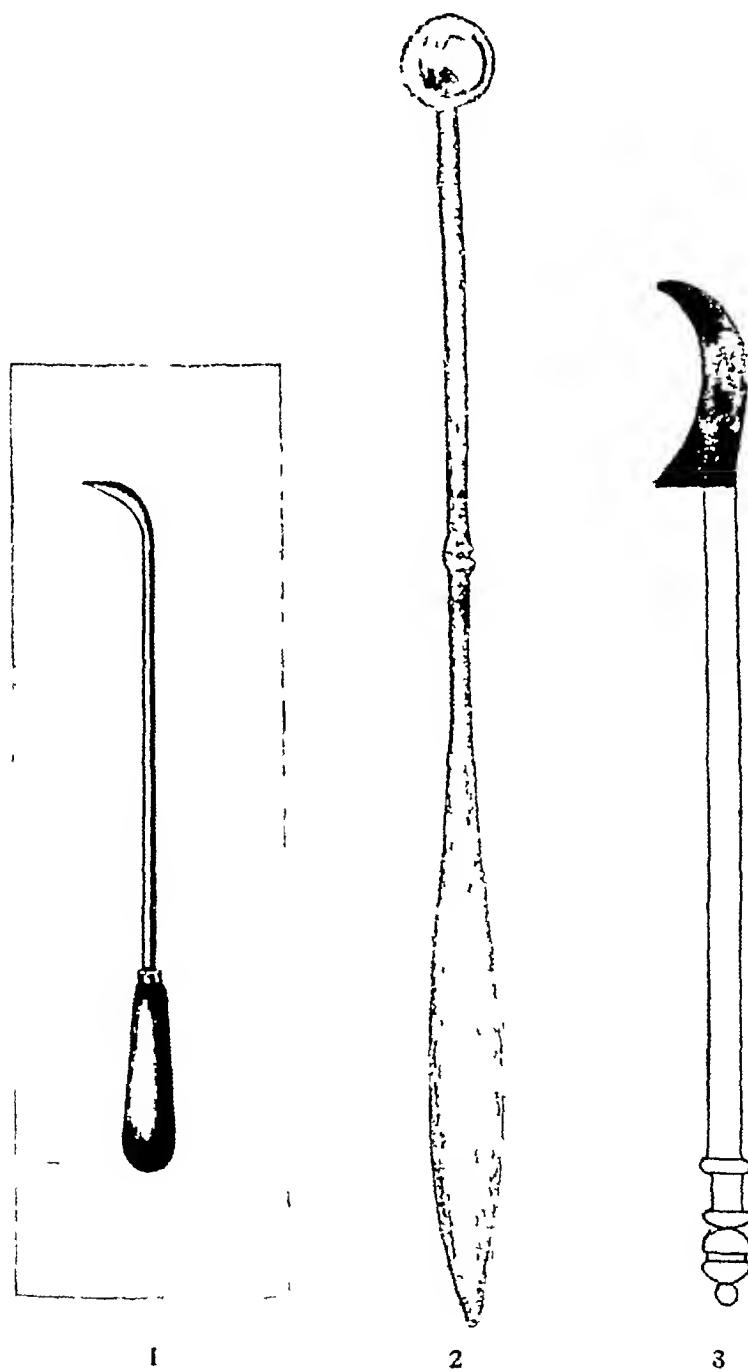
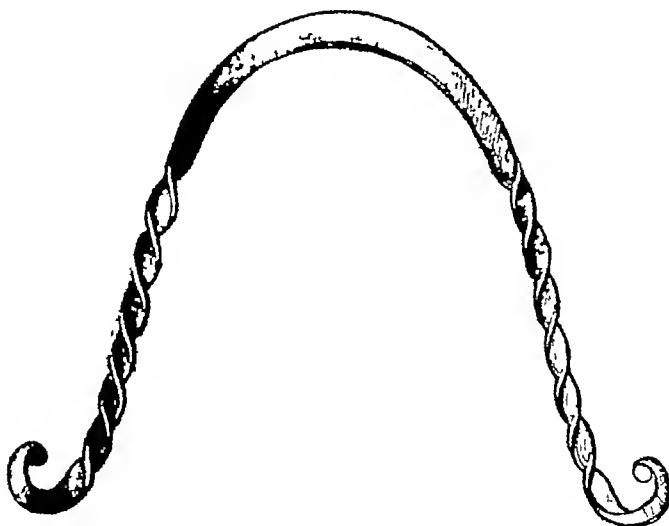


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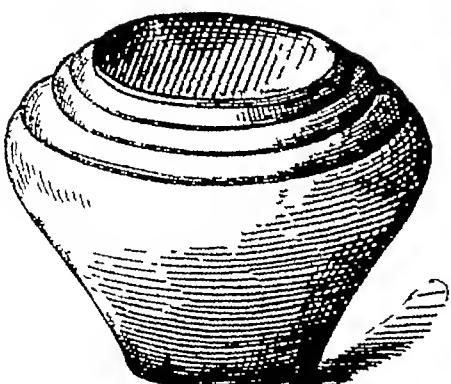
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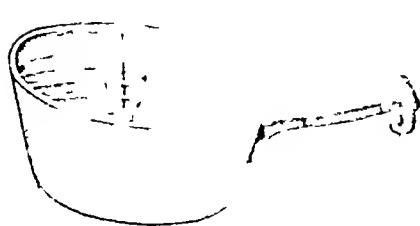
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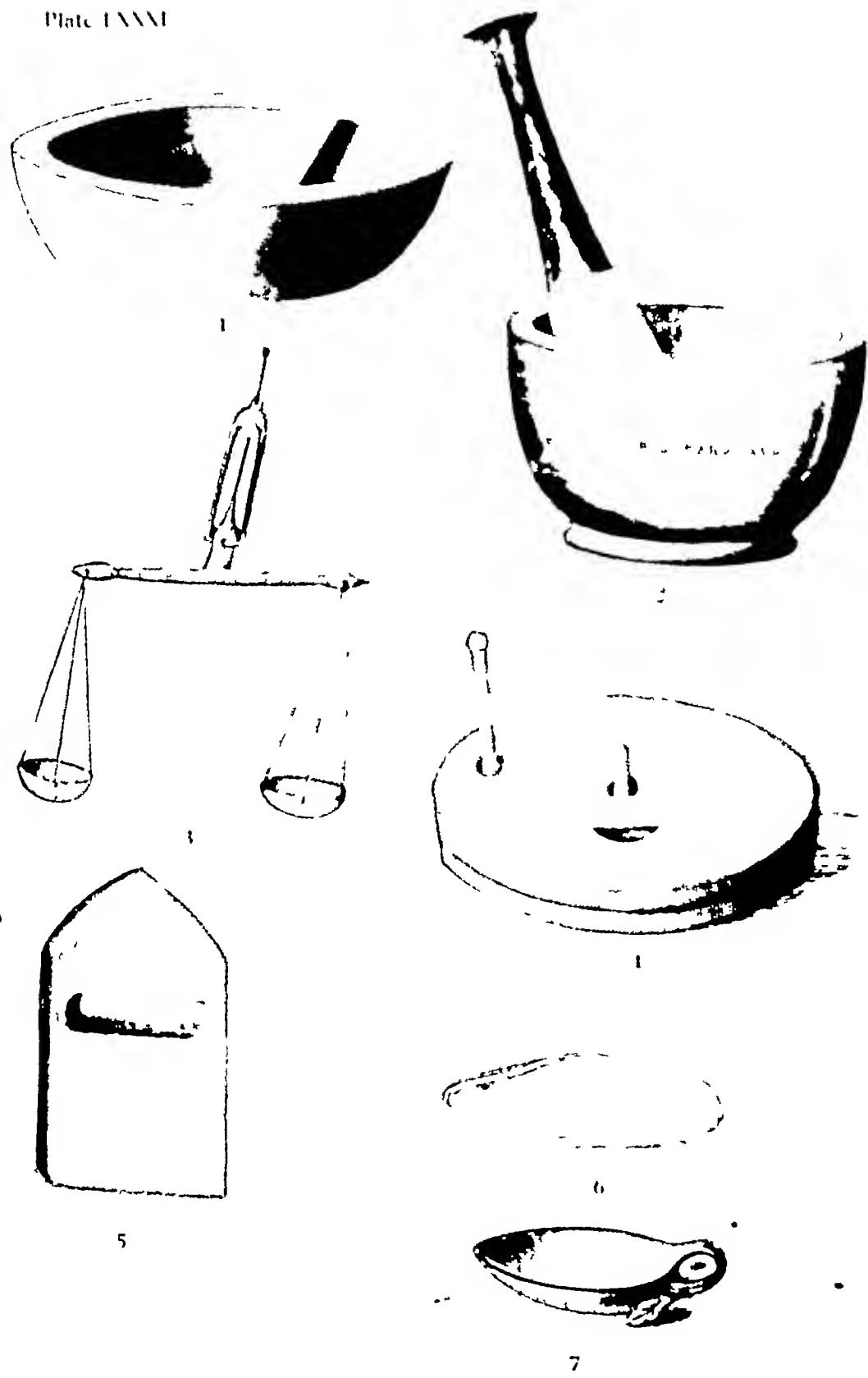
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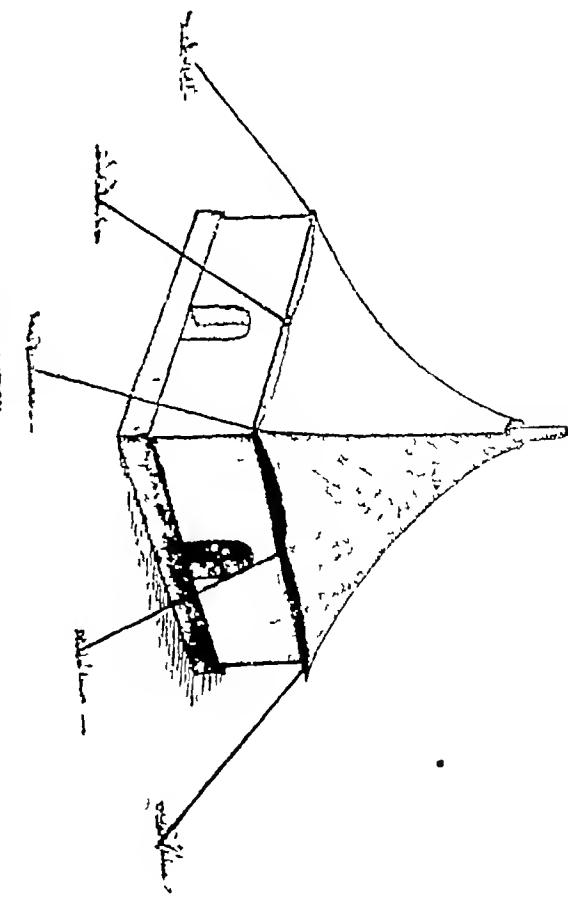
Plate LXXXII



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